

FACTORS AFFECTING  
ENTREPRENEURIAL INTENTION OF  
UNIVERSITY STUDENTS: A LEBANESE  
CASE STUDY

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## **ABSTRACT**

Lebanon is an unstable country that is facing low economic growth and political instability, which resulted in high unemployment and immigration rates among its youth in general and its university students specifically. Entrepreneurship is related to a country's long-term economic development and growth, as it involves activities associated with creativity and innovation; entrepreneurship is also the source of job and wealth creation. Due to these facts policy makers have heavily relied on entrepreneurship in their policy agendas.

Previous research shows that intention is the starting point of pursuing an entrepreneurial career. Therefore, this research is aimed to investigate the factors affecting entrepreneurship intention among university students in Lebanon and the possible policy implications of the findings.

This research was based on mixed approach to data collection. The first phase of the research involved quantitative self-administered questionnaire, distributed to nine different areas across the country. The initial sample included 3,154 students, and the obtained response rate was 34.9%. In the follow up qualitative phase, semi-structured interviews were conducted with 12 individuals to help explain and obtain a deeper understanding of the quantitative results and gather their opinion regarding the entrepreneurship ecosystem in Lebanon and the factors affecting students' intention in the country. The data was subjected to two analytical techniques, structural equation modelling was used to examine the measurement model and test the study hypotheses, whereas template analysis was used to analyse the qualitative data.

The findings of this study provided theoretical and practical implications. Theoretical contribution is in the application of the theory of planned behaviour in a non-Western country, where little literature is presented. This study is the first of its kind in Lebanon, as no study has attempted to explain the factors affecting entrepreneurial intention among university students over different

Lebanese regions. The results have practical implications for policymakers, universities, practitioners and other concerned parties to gain a better insight of students' personal characteristics, how they perceive the support offered from the university, environment and government towards entrepreneurship. Furthermore, it also provided an understanding of how the antecedents are related, which could be useful in enhancing entrepreneurial intention in Lebanon.

**Key words:** Entrepreneurship, intention, university support, environment support, government support, Theory of Planned Behaviour, Lebanon, instability, Structural Equation Modelling.

## **Table of Contents**

ACKNOWLEDGMENTS .....	i
ABSTRACT.....	ii
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Background of the Study .....	1
1.3 Importance of the study.....	4
1.4 Aim and Objectives .....	5
1.5 Overview of the Methodology .....	5
1.6 Expected Contribution.....	6
1.7 Structure of the dissertation.....	6
1.8 Summary .....	7
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>8</b>
2.1 Introduction .....	8
2.2 Definition of entrepreneurship .....	8
2.3 Types of Entrepreneurship .....	12
2.4 Importance of Entrepreneurship.....	13
2.6 Models of Entrepreneurial Intention .....	17
2.6.1 Theory of Planned Behaviour.....	18
2.6.2 Entrepreneurial event model by Shapero.....	19
2.6.3 Theoretical framework of the research.....	20
2.7 Entrepreneurship Education and University Environment.....	21
2.7.1 Definition and importance of entrepreneurship education .....	21
2.7.2 Entrepreneurship Teaching Methods and university Environment .....	24

2.8 Review of Research Studies in Entrepreneurial Intention Determinants .....	26
2.9 Understanding the context of Lebanon .....	29
2.9.1 Historical Background.....	29
2.9.2 Economic and Fiscal Background .....	31
2.9.3 Business Environment .....	32
2.9.4 Higher Education Background .....	33
2.9.5 Support of Entrepreneurship in Lebanon.....	34
<b>CHAPTER THREE: RESEARCH HYPOTHESES .....</b>	<b>36</b>
3.1 Introduction .....	36
3.2 Theory of Planned Behaviour .....	36
3.3 Perceived Contextual Factors.....	38
3.4 Personal Characteristics .....	41
3.4.1 Need for achievement.....	42
3.4.2 Locus of Control.....	43
3.4.3 Propensity to Take Risk.....	43
3.4.4 Innovativeness .....	44
3.5 Theoretical Framework .....	45
<b>CHAPTER 4: RESEARCH METHODOLOGY .....</b>	<b>47</b>
4.1 Introduction .....	47
4.2 The Research Philosophy and Paradigm.....	49
4.3 Research Approach .....	51
4.4 Research Method and Strategy.....	52
4.4.1 Mixed Method .....	52
4.4.2 Triangulation .....	53
4.5 Time Horizon .....	56

4.6 Sampling Strategy .....	56
4.6.1 Sample .....	57
4.6.2 Sampling Selection Criteria.....	62
4.7 Piloting Questionnaire.....	66
4.8 Questionnaire and Interview Design .....	66
4.8.1 Questionnaire Design .....	66
4.8.2 Interview Design.....	72
4.9 Reliability and Validity .....	73
4.9.1 Reliability and validity of questionnaire .....	74
4.9.2 Reliability and validity of interview .....	74
4.10 Ethical Considerations.....	75
4.11 Research Methodology Limitation.....	76
4.12 Chapter Summary.....	76
<b>CHAPTER FIVE: QUANTITATIVE AND QUALITATIVE DATA ANALYSIS AND RESULTS .....</b>	<b>78</b>
5.1 Introduction .....	78
5.2 Quantitative Data Screening.....	78
5.2.1 Missing Values .....	79
5.2.2 Outliers .....	79
5.2.3 Normality of Data .....	80
5.2.4 Common Method Variance Test.....	80
5.2.5 Linearity.....	81
5.3 Descriptive statistics.....	83
5.3.1 Gender .....	86
5.3.2 Geographical Location .....	87

5.3.3 Age.....	88
5.3.4 Private and Public High School Enrolment.....	88
5.3.5 Employment status .....	89
5.3.6 Family income: .....	90
5.3.7 Family member's status of self-employment .....	90
5.3.8 Plans upon graduation .....	91
5.3.9 Preferred location to open a business .....	92
5.3.10 Attending Entrepreneurship Course/ Training .....	93
5.4 Structural Equation Modelling.....	94
5.5 Assessment of Measurement Model .....	94
5.5.1 Reliability .....	95
5.5.2 Convergent Validity (CV) .....	95
5.6 Assessment of Structural Model .....	100
5.6.2 Hypotheses Testing.....	105
5.7 Quantitative Data Analysis Summary .....	112
5.8 Qualitative Data Analysis.....	116
5.8.1 Introduction .....	116
5.8.2 Developing the interview guide.....	116
5.8.3 Qualitative data analysis .....	117
5.8.4 Findings of qualitative analysis: .....	119
5.9 Credibility of interview results.....	127
5.10 Conclusion.....	127
<b>CHAPTER SIX: DISCUSSION.....</b>	<b>129</b>
6.1 Introduction .....	129
6.2 Research Stages.....	129



6.3 Representation of questionnaire data .....	133
6.4 Discussion of students' entrepreneurial intention and its antecedents .....	133
6.4.1 Entrepreneurial Intention .....	134
6.4.2 Theory of Planned Behaviour Constructs .....	134
6.4.3 Personal Characteristics .....	136
6.4.4 Educational Support .....	140
6.4.5 Lebanese Environmental Context .....	144
6.4.6 Government Support .....	146
6.7 Conceptual Framework .....	149
6.7.1 Policies and Government Support .....	149
6.7.2 University and Education .....	150
6.7.3 External Environment .....	152
6.7.4 Summary and Final Framework .....	153
<b>CHAPTER SEVEN: CONCLUSION AND IMPLICATIONS .....</b>	<b>155</b>
7.1 Introduction .....	155
7.2 Research Conclusion .....	155
7.3 Research Limitations .....	158
7.4 Research Contribution to Knowledge .....	159
7.5 Research Contribution to Management Practices .....	160
7.6 Recommendation for Future Research .....	162
<b>References .....</b>	<b>163</b>
<b>Appendices .....</b>	<b>216</b>
Appendix A: Main Research Streams in Entrepreneurship Definition .....	216
Appendix B: Request for Distribution of Questionnaire .....	219
Appendix C: Research Participant Information Sheet .....	221

Appendix D: Consent Form ..... 223

Appendix E: Questionnaire ..... 224

Appendix F: Ethical Approval ..... 241

Appendix G: Skewness and Kurtosis ..... 242

Appendix H: Piloting Reliability..... 244

## **List of Tables**

Table 2. 1: Comparison of Business Education and Entrepreneurship Education .....	25
Table 2. 2: Incubators and Accelerators in Lebanon .....	35
Table 4. 1: Sampling Methods .....	58
Table 4. 2: List of Private Universities in Lebanon that teaches Business Administration.....	60
Table 4. 3: Disciplines within the School of Business majors in LIU .....	62
Table 4. 4: Targeted Senior Courses from each major .....	64
Table 4. 5: Questionnaire Construction .....	69
Table 5. 1: Mean and Std. Deviation .....	81
Table 5. 2: P-value of linearity test.....	82
Table 5. 3: Descriptive Statistics- Mean and Standard Deviation .....	84
Table 5. 4: Gender Distribution of respondents.....	87
Table 5. 5: Geographical distribution of respondents.....	87
Table 5. 6: Age of respondents .....	88
Table 5. 7: High School Background.....	89
Table 5. 8: Employment Status .....	89
Table 5. 9: Family Income .....	90
Table 5. 10: Family/Friends/Relative's self employed .....	91
Table 5. 11: Plans upon graduation.....	92
Table 5. 12: Preference in opening business.....	92

Table 5. 13: Do you like to attend entrepreneurship courses/ trainings.....	93
Table 5. 14: Did you take any entrepreneurial courses/ trainings.....	93
Table 5. 15: Reliability Analysis .....	95
Table 5. 16: Constructs' Composite Reliability and Average Variance Extracted.....	97
Table 5. 17: Factor Loading.....	98
Table 5. 18: Final items included in analysis and their factor loading .....	99
Table 5. 19: Goodness of fit reference table .....	100
Table 5.20: Goodness of fit indices for latent variables in the model .....	101
Table 5. 21: Covariance: (Group number 1 - Default model).....	102
Table 5. 22: Comparison of fitness indices for perceived governmental control. ....	102
Table 5. 23: Model Goodness of fit .....	103
Table 5. 24 Theory of Planned Behaviour hypotheses testing results .....	106
Table 5. 25: Perceived University Support hypotheses testing results .....	107
Table 5. 26: Perceived Governmental Support hypotheses testing results .....	108
Table 5. 27: Perceived Environmental Support hypotheses testing results .....	109
Table 5. 28: Hypotheses results concerning Personality Traits .....	111
Table 5. 29: Interviewed stakeholders .....	118
Table 5.30: Template analysis of interviews .....	119
Table 6. 1: Research Hypotheses, Questionnaire and Interview Questions.....	130

## **List of Figures**

Figure 3. 1: Hypothesized model of students' entrepreneurial intention.....	46
Figure 4. 1: Research Design.....	48
Figure 4. 2: A mixed method sequential explanatory study .....	55
Figure 4. 3: Lebanese International University Campuses .....	61
Figure 5. 1: Results of structural equation model.....	104
Figure 5. 2: Results of SEM (only significant paths are reported) .....	113
Figure 6. 1: Policies and Government Support Framework .....	150
Figure 6. 2: University and Education Framework.....	151
Figure 6. 3: External Environment Framework .....	153
Figure 6. 4: Conceptual framework .....	154

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Introduction**

This study examines the factors that affect students' entrepreneurial intention in Lebanon. Entrepreneurship plays an important role in venture creation and thus in decreasing unemployment, creation of wealth and contributing to a country's economic development.

As previous researches found, entrepreneurial behaviour is intentional and so determining the factors that are affecting the intention of Lebanese students towards entrepreneurial behaviour may help in establishing policies that encourage more students to choose entrepreneurship as a career option. This chapter presents the dissertation background, its aim and objectives. It also highlights the importance and significance of the study, as well as the context and methodology applied.

### **1.2 Background of the Study**

Lebanon, a small country of six million inhabitants located in the eastern shores of the Mediterranean Sea, has been facing a high overall rate of unemployment and among its youth and university graduates in specific.

For a long period of time the country faced internal and external political instability, which resulted, among other things, in a significant decrease in foreign investments, which fell to \$2.879 billion in 2018, down from \$4.4 billion in 2009 (UNCTAD, 2018). According to the Chairman and General Manager of the Investment Development Authority of Lebanon (IDAL) Nabil Itani, this decrease contributed to an additional down back in availability of high skill jobs in the country, leading to higher unemployment rate especially among university graduates (Lukia, 2016). Moreover, the large influx of Syrian refugees to the country, negatively affected job opportunities and exacerbated poverty in the country. Official refugees in Lebanon constitute of one-quarter of the population (Borgne and Jacobs, 2016). Most Syrian refugees have low level of education, and they compete with the Lebanese for low-quality and low- skilled jobs. Even before the Syrian crisis

Lebanon was facing problems in the labour market. Majority of jobs are concentrated on low productivity activities, leaving skilled employees with a low chance of finding a suitable job (Jaude, 2015).

Another important contributor to the unemployment among the Lebanese is the decrease of job opportunities in the Gulf region, which for centuries has been the main employment destination, especially for Lebanese university graduates (Kadi, 2017). This decrease is mainly due to the drop in oil prices and rise of security concerns in the Gulf countries. Some countries such as United Arab Emirates and Saudi Arabia have sought to apply restrictions entry regulations that limit employment possibilities for the Lebanese, due to political conflicts between parties (Kadi, 2017).

It is difficult to provide the exact rate of unemployment in Lebanon due to data availability and access to information being limited. Statistical system is weak in terms of low quality, poor reliability and limited availability of data. This issue is widespread and obstructs economic analysis, including that of the labour market (World Bank Organization, 2015). The World Bank Data (2018) estimated the unemployment rate in Lebanon to be around 6.2% in 2018 with youth unemployment exceeding 20% (The World Bank, 2017b). This estimation is based on the findings of the Labour Force Surveys (LFSs), where the last LFS was conducted by the Central Administration of Statistics (CAS) in 2009. The United Nations Economic and Social Commission for Western Asia observed that the periodicity of labour force survey in Lebanon is “ad-hoc”, while other countries in the region prepare it annually (such as Algeria, Tunisia, Morocco and Iraq), and others (such as Palestine, Jordan and Egypt) prepare it quarterly (ESCWA, 2013).

A different unemployment rate was announced by the Lebanese Minister of Labour in 2018, who declared unemployment rate to be 25%, with youth unemployment exceeding 37% (Hamadi, 2019). Furthermore, the Lebanese president General Michel Aoun stated that unemployment has reached 46% during 2018 (Daily Star, 2018).

It is apparent that unemployment data in Lebanon cannot be reliable. Nevertheless, regardless of the different estimated rates, Lebanon faces employment challenges. Around 23,000 Lebanese on average enter the labour market annually, to absorb them the economy needs to create more than six times the number of jobs it has been creating (Borgne and Jacobs, 2016). High unemployment rate along with critical political situation and poor living standards, encourage young Lebanese,

specially graduates to emigrate. Emigration in Lebanon is not a new phenomenon, it started since the 19<sup>th</sup> century and increased during the civil war (1975-1990) till today. According to Brihi et al., (2019) it was found that by year 2000, around 40% of college educated Lebanese emigrated, thus leaving the country with an additional problem “brain drain” or what is also called “talent migration”.

In recent decades, many countries started to use entrepreneurship as a main tool to boost economic growth and decrease unemployment rates. Entrepreneurs boost and develop economic growth by introducing innovative technologies, products and services. In addition, they increase market competition which challenge established firms to become more competitive, which in turn raises productivity of firms and economies and provides new job opportunities (Caliendo et al., 2014; Dana 2001). The importance of entrepreneurship is highlighted in the European Entrepreneurship 2020 Action Plan, it stated that “in order to bring Europe back to growth and create new jobs, we need more entrepreneurs” (European Commission, 2013; p.3).

The World Bank (2014) identified that, entrepreneurship is crucial to drive job creation in Lebanon; however, according to the report the country still lags the great opportunities’ entrepreneurship may provide it. Several private initiatives have taken to support entrepreneurs and start-ups, with the aiming of providing a range of services such as business skills training, technical advice and assistance with finance, accounting and marketing (Angel-Urdinola et al., 2013). Despite this, Lebanon still faces problems in creating jobs, especially high-skilled jobs for university graduates.

Even during periods of rapid economic growth, employment growth in Lebanon was low. Between 1997 and 2009 Lebanese real GDP expanded at an average rate of 4.4 percent per year, yet employment grew by only 1.1 percent (World Bank, 2016). Another issue is that the majority of jobs created during that period were in low-productivity sectors demanding low-skilled workers, leaving high skilled university graduates without suitable employment opportunities (World Bank, 2016). Knowing that enhancement of entrepreneurship requires a twofold policy that focuses on the present situation and on the prospects of entrepreneurship (Turker and Selcuk, 2011); researches on entrepreneurship remain few and limited in the country.



### **1.3 Importance of the study**

Entrepreneurship is identified as a critical driver for a country's economic growth and social well-being due to its link in increasing innovation and generating employment opportunities (Zhao et al., 2005). Previous research claimed that intention is the first step towards an entrepreneurial behaviour (Bird 1988; Krueger and Carsrud 1993) and that it is the best predictor of entrepreneurship behaviour (Kim and Hunter, 1993). Hence, investigating and understanding entrepreneurial intention is critical as strong intention would increase the possibility of reaching entrepreneurial activities.

Lebanon faces increase supply of educated manpower and few employment opportunities, and so it is crucial to evaluate students' perception towards entrepreneurship and understanding the factors that influence their intentions towards engaging in such activity. Despite the need for entrepreneurial activities in the country, there is a lack of research regarding the factors that motivates and hinders individuals to entrepreneurship. Moreover, no empirical research has examined the relationship between higher education institutions, environment and government support with the development of students' intention of becoming entrepreneurs in Lebanon. Accordingly, this study concentrates on entrepreneurial intention in Lebanon, thus filling a gap in literature, by exploring the factors that affect the choice of entrepreneurship as a career option between university students, keeping in view of covering different geographical areas in the country.

Findings are pretend to be significant to Lebanese policymakers, to enable them to better understand the factors that affect its students into considering being entrepreneurs. Fostering such culture will increase the number of entrepreneurially- minded graduates, and so having students as the main target of this study is critical, as university students are recognized as national assets because they have the potential to drive economic growth (Rasli et al., 2013). Moreover, the significance of this study also comes from spread of globalisation, corporate downsizing, global social development and emergence of knowledge- based economies in developed and developing economies and the need of Lebanon to keep pace with these changes. In this perspective, entrepreneurial activities are a main tool used by many countries to reach such goals.

Excess of university graduates, lack of job growth, few formal sector opportunities and absence of positive feedback of previous and current attempts to find a solution for unemployment problem for Lebanese in general and youth in specific, highlights an important ground for providing more attention to entrepreneurship field.

#### **1.4 Aim and Objectives**

This study aims to build a framework for a deeper understanding of motivations and obstacles towards entrepreneurship in Lebanon. The objectives of the study are listed below:

- Identify the impact entrepreneurship has on a country's development.
- Test applicability of Theory of Planned Behavior in the context of Lebanon.
- Analyze the level of availability of entrepreneurial characteristics among university students.
- Investigate students' perceptions towards support provided from their current context.
- Recommend educators, practitioners and government policymakers for developing and optimizing conditions to encourage students' entrepreneurial activity in Lebanon.

#### **1.5 Overview of the Methodology**

The research methodology is based on mixed method, which is further explained in chapter four. Questionnaire was used as a technique for data collection; it was distributed to 3,154 students of School of Business at the Lebanese International University respond rate reached 34.9%.

In addition to the questionnaire, semi- structure interviews have been conducted, in order to explain the quantitative data and add depth and richness to the research. Interview sample frame included 12 participants who are concerned with the Lebanese entrepreneurship ecosystem and are interested in this field. Data from the questionnaire was analysed using quantitative methods through statistical software SPSS and AMOS. The qualitative data was analysed using template analysis. The results of data collection and interpretation are presented in chapter five.

## **1.6 Expected Contribution**

This study will contribute to the limited literature relating to entrepreneurship in Lebanon. Many studies have examined the factors that affect entrepreneurial intention of university students, but no such study has been conducted in Lebanon. This study will concentrate on students of Lebanese International University (LIU), which has campuses across nine different areas in the country. It will provide the university's senior managers with deep insights of factors that influence their own students' intention towards entrepreneurship. This research aims to provide evidence to influence new policies to ensure a higher priority is placed on developing entrepreneurial careers within universities, thereby contributing in reducing unemployment rate in the country. Findings may stimulate policymakers to reconsider their governmental policies and programs and formulate new ones, in order to foster a good business climate that support graduate entrepreneurship and enhance positive intentions and feelings towards entrepreneurship. Moreover, the results have the potential to be applied to other universities in Lebanon, as LIU is the largest university and it is spread across 9 different geographical areas. In addition, by applying the Theory of Planned behaviour in the Lebanese context will provide the theory with additional support.

## **1.7 Structure of the dissertation**

This dissertation is structured in five chapters.

Chapter One- Introduction; provides an overview of the research and describes a background of the study, the importance and significance of conducting this research, aim and objectives, in addition to the methodology applied.

Chapter Two- Literature Review; examines the theoretical approach that have sought to explain entrepreneurship, it also conveys an understanding of models related to entrepreneurship intention. Additionally, this chapter also provides an overview of the historic, economic and political context of Lebanon.

Chapter Three- Research Hypotheses; presents the formulation of hypotheses that will be quantitatively tested.

Chapter Four- Research Methodology; discusses the research design and the rationale for its choice. This chapter focuses on the research philosophy, approach, strategy and data collection. Moreover, it discusses the sampling strategies, the reliability and validity of the research.

Chapter Five- Quantitative and Qualitative Data Analysis and Results; it presents the findings of the study, including an interpretation of statistical results obtained from the questionnaire data and hypothesis testing. Moreover, it explores the qualitative findings from the in- depth interviews.

Chapter Six- Discussion; illustrates the overall findings combining chapters two, three, four and five in a coherent discussion.

Chapter Seven- Conclusion and Implications; provides an overall conclusion for this study, in addition to the study's contribution to knowledge and management practices, the chapter concludes with the research limitations and suggestions for future research and study.

## **1.8 Summary**

With the alarming rate of unemployment and low skilled jobs opportunities in Lebanon, the need for entrepreneurship is high as it is identified as a key tool for economic development. Currently, limited information concerning entrepreneurship is found in Lebanon, so this study will provide a unique and large data set across nine different areas, to better understand the factors affecting students' entrepreneurial intention, and thus recommend educators, practitioners and government policymakers for developing and optimizing entrepreneurial activity in Lebanon.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

Chapter two aims to provide a theoretical background for the study. It is divided into two main sections, the first part of the chapter discusses and examines relevant theories and researches related to entrepreneurship, with specific focus on entrepreneurial intentions. The chapter begins with a discussion on the various definitions of entrepreneurship and its importance, it also presents entrepreneurial intention models, in addition a discussion about entrepreneurship education and the role government, university and environment plays in supporting entrepreneurship is illustrated in this chapter.

The second part of the chapter explores the context of Lebanon, including the historical and economic background of the country, along with its current employment status, education system and entrepreneurial ecosystem.

### **2.2 Definition of entrepreneurship**

Entrepreneurship is generally understood as the process of opening and operating a small business. However, even though most entrepreneurial ventures start out as a small business, not all small businesses tend to be entrepreneurial (Driessen and Zwart, 2010). Regardless of the entrepreneurship boom and growth, its definition is still found to be inconsistent (Mokaya et al., 2012; Lee et al., 2005; Watson, 2001). Entrepreneurship is a complicated phenomenon that involves different set of activities with technical, human, managerial and entrepreneurial characteristics, which requires various skills (Dana and Anderson, 2007). It is viewed as a multi-faceted phenomenon, where each school of thought suggests different dimension for the entrepreneurial process. The definition of entrepreneurship depends on the researcher perspective (Shane and Venkataraman, 2000), some view entrepreneurship from an economic perspective other from the sociology, psychology, management and social perspective, thus giving entrepreneurship a multidimensional concept (Bula, 2012).

The origin of the term “entrepreneurship” is derived from the French verb *entreprendre*, meaning ‘to undertake’ (McMullan and Long 1987; Carland et al., 2002). Cantillon, Say and Schumpeter are said to be the three main pioneers who dealt with the concept of entrepreneurship (Filion, 1998). Richard Cantillon, an Irish- born banker resident in Paris, introduced the term “entrepreneurship” into the literature of economic science (Landström, 2005), he was the first person to use the word entrepreneur in an economic sense in his book “*Essai sur la Nature du Commerce en Général*” translated to “Essay on the Nature of Commerce” first published in 1755 (Rothbard 1995; Politis and Landstrom 2002). Cantillon divided inhabitants of a country into two groups; excluding the princes and landlords, the first group are entrepreneurs which includes farmers and merchants, and the second group are the hired individuals. The term “entrepreneur” for Cantillon was used to refer to a self-employed person that buys products at a known price with the purpose of reselling it at an uncertain price, by that the entrepreneur is a risk taker, and it is by this risk that stability and equilibrium is brought to the market and so entrepreneurs were related to the equilibrium between supply and demand in the economy (Bula 2012). An entrepreneur is a non-fixed income earner who invests a specified amount of money without exactly knowing the return of the investment (Wennekers and Thurik, 1999; Hisrich et al., 2005, Hebert and Link, 1989). Many other scholars such as Adam Smith, Alfred Marshall, and Frank Knight elaborated on Cantillon’s definition, however, risk taking, and profit was kept as the main feature of entrepreneurship.

After Cantillon the French economist Jean Baptiste Say (1767-1832) had the greatest impact on the field of entrepreneurship. Say, broadened the entrepreneurship concept and described the role of entrepreneur in the economy as a “broker”, who organises and allocate resources of production with the aim of producing goods or services that have value and maximize utility. Entrepreneur shifts economic resources from a low productivity area to higher productivity and increase profit (Drucker, 2007). Future demand forecasting, suitable timings and input, production costs, selling prices and supervision and administration plays the main role on the success of entrepreneurs. For Say entrepreneurs assume risk of carrying out these activities on his own behalf. Entrepreneur is also the one who carry out the means of production (land, labour and capital) on his own.

Joseph Schumpeter (1934) introduced the concept of innovation to entrepreneurship, he differentiated between an entrepreneur who is an innovator and a manager that operates a business.

According to Schumpeter (1934) an entrepreneur is an “innovator who introduces a new service or product, develops and implements a new technology, opens a new business, discovers a new or existing source of supply for a scarce resource, and reorganizes innovative management” (p.154). Schumpeter emphasized the beneficial process of creative destruction; the introduction of new products results in the obsolescence or failure of others, he describes an entrepreneur as “a person who destroys the existing economic order by introducing new products and services, by introducing new method of production, by creating new forms of organizations, or by exploiting new raw materials” (Bygrave and Zacharakis, 2011, p.1). By that, creative destruction is largely responsible for the dynamism of industries and long-run economic growth. It can be concluded that an entrepreneur according to Schumpeter is an innovator who aims in destructing old ideas and involving new technology and skills, for achieving continuous progress and improving living standards.

A more recent school of thought, moved from trying to explain entrepreneurship to entrepreneurship development. During this phase behavioural science researchers, specifically psychologists, showed their interest in the field (Politis and Landstrom, 2002). David McClelland (1961) is the pioneer among behavioural scientists interested in entrepreneurship. For McClelland (1961) a positive relation exists between a country need for achievement and economic development, the higher the need the higher the development will be. Furthermore, as the need for achievement increase, more individuals will be entrepreneurs, and thus they are the drivers for development of a nation. McClelland explained that entrepreneurs need to have high need for achievement, high self- confidence, problem- solving skills, acceptance of responsibility, moderate risk takers and can follow up with results and feedbacks.

Regardless of the different definitions given to entrepreneurship and the absence of a single commonly recognized one, most definitions turn around the concept of starting up or attempting to start a business (Nabi et al., 2006). According to Wouter (2004) entrepreneurship definitions have several common factors such as the process of opportunities identification, newness and taking risk. Volery and Shaper (2007, p.4) mentioned that there are five factors that are necessary for entrepreneurship to exist and that is “an entrepreneur, an opportunity, resources, an organization and supportive environment”. Appendix A shows a list of selective definitions given for entrepreneurship during different historical period. For the purpose of understanding

entrepreneurship, several scholars categorized entrepreneurship into distinct school of thoughts. Kuratko and Hodgetts (2007) sorted entrepreneurship into namely financial, displacement, environmental, entrepreneurial traits, venture opportunities and strategic formulation.

According to Cunningham and Lischeron (1991) definitions of entrepreneurship falls into six main school of thoughts, that provide distinctive points of view. The great person school states that entrepreneurs are individuals born with an intuitive ability, where without this intuitive individual would lack the entrepreneurial behaviour and skills. The great person has a high level of confidence in individual's abilities; that are characterised with high levels of energy, persistence, vision, single-mindedness and self-esteem (Cunningham and Lischeron, 1991). The psychological school focuses on specific and unique psychological traits of entrepreneurs, it explains that entrepreneurs have exclusive values, needs and attitudes, and this combination differs entrepreneurs from non-entrepreneurs. Risk taking, propensity and personal values are found to be the main three personal characteristics that dominated entrepreneurship literature (Lachman, 1980). This school contends that entrepreneurship is a trend that develops over time in an individual through the process of socialization. On the other hand, the classical school explains that the main fundamental of entrepreneurial behaviour is innovation. The fundamental assumption of this school focus on the role of management in seeking opportunity that lacks innovation and creativity (Cunningham and Lischeron, 1994). The management school classifies an entrepreneur as an individual who organizes, manages, and assumes the risk of an economic venture for the sake of profit (Deshpande et al., 1966). The failure in entrepreneurial activities is mainly due to poor management tactics. The leadership school of entrepreneurship view entrepreneurs as leaders. This school proposes that a successful entrepreneur must be a 'people manager'; an effective leader, a mentor who motivates, directs and leads others to accomplish assigned tasks. Entrepreneur must be able to define a vision and purpose and attract people to rally around that vision and transform it into reality (Kao 1989). Whereas, Intrapreneurship school focus on individuals working within an institution and implement creative ideas without necessarily becoming owners and managers.

With various entrepreneurship definitions proposed by researchers and scholars, studies need to provide a clear statement of the meaning when using it (Bygrave and Hofer 1991). On other side, due to the importance of innovation to the economy, this research will be based on the definition given by Peter Drucker (1985) who states that an entrepreneur searches for change, responds to it



and exploits opportunities, innovation is entrepreneur's main tool, who converts a source into a resource.

### **2.3 Types of Entrepreneurship**

When analysing aspects related to entrepreneurs it is important to differentiate between types of entrepreneurs (Baumol 1990). A popular method for classifying entrepreneurship lies between the distinction of push and pull entrepreneurs and the necessity- based and opportunity-based entrepreneurs. In some cases, individuals may be pushed into entrepreneurship, without even wishing for it, due to negative factors based on changes in their lives such as loss of a job, extreme dissatisfaction with a current job, family environment and many other reasons, such entrepreneurs are known as “pushed entrepreneurship” (Brockhaus, 1980; Shapero 1975, Gilad and Levine, 1986). In comparison, “pulled entrepreneurship” is due to positive factors such as interest and confidence in looking for new opportunities to exploit and venture of new ideas (Krueger 1993; Mancuso 1973). Opportunity- based and necessity- based entrepreneurship have been known from their use in the Global Entrepreneurship Monitor (GEM), which surveys entrepreneurs with the purpose of knowing why they decided to start and grow their business (Guterman 2015). In GEM survey respondents who mentioned that they were seeking better opportunities or wanted to take advantage of an opportunity, where known as “opportunity- based” entrepreneurs, while respondents starting their business because they had no other choice for work where known as “necessity- based” entrepreneurs or “reluctant entrepreneurs” (Guterman 2015). According to Djankov et al., (2004) necessity entrepreneurs are results of economic recession, job loss or unemployment after graduation. There are some debates across opportunity and necessity-based entrepreneurs. In this instance, Blanchflower (2004) explains that there is a lack of consensus about whether problems in the economy of a country results in discouragement of self-employment due to absence of available opportunities or that it leads to a necessity- based entrepreneurship because of lack of alternatives.

Current literature also differentiates between three different types of entrepreneurs based on the entrepreneurship stage. Nascent entrepreneurs are individuals that have been engaged in some sort of entrepreneurial activities such as business plan formation or resource acquisition and intend to create or grow an existing venture (Delmar and Davidsson, 2000). Novice or habitual

entrepreneurs have already established or grown their venture and are distinguished according to their non-previous or previous entrepreneurial activity (Westhead and Wright, 1998). Whereas, social entrepreneurs are individuals driven by wealth in terms of tangible resources such as products, client funds and intangible resources, such as happiness and general wellbeing (Zahra *et al.*, 2009).

## **2.4 Importance of Entrepreneurship**

During the mid-20<sup>th</sup> century many government policies focused on supporting and promoting large organizations as they believe that these organizations are the main source of economic development and growth (Lundström and Stevenson, 2007). This situation overlooked the function of small organizations in creating employment and innovation opportunities, and even development of new firms (Stevenson and Lundström 2007). The positive results of having smaller organizations in the economy were disregarded until the year 1979, when Birch (1979) argued that newest employment opportunities in the United States were due to the small and newly established organizations. The publication of “Job Generation Process” by Birch (1979) overthrew the widespread belief that large companies were the engines of job creation. Birch was interested in understanding how jobs are created, he analysed the data of 12 million businesses in USA for the period between 1969-1976. Birch discovered that large firms, with more than 500 employees, only generated 15% of all net new jobs in USA, whereas 60% of all jobs were created by firms with 20 or less employees hired. After Birch’s (1979) publication of the significance and acknowledgement of small and new firms, there was an increase in interest towards entrepreneurship as a means of creating employment opportunities.

Nowadays, entrepreneurship is more considered when compared to the past. Putting individuals to work does not essentially mean obtaining them employment opportunities, but with the help of entrepreneurship, individuals can fundamentally create their own opportunities. The creation of new businesses encourages the conversion of innovation into marketable products and services, which increases employment opportunities (Zhao et al., 2005).

Governments are shifting their focus into creating policies that strengthen, support as well as create more new businesses opportunities for small and medium size enterprises (Stevenson and Lundström, 2007). Entrepreneurship is being considered as a manner of moving nations towards a

dynamic and sustainable economy based on creativity and innovation (Hathaway and Litan, 2014; Rae, 2010; Fayolle and Degeorge 2008; Scarborough and Zimmerer, 2003; Kruegger et al., 2000). Due to the undisputed importance of entrepreneurship improvement to economy and country development, several nations have started incorporating the entrepreneurial spirit into their culture and education system (Deakins et al., 2012), through entrepreneurial education in many of the universities, colleges, and many entrepreneurial institutions across the world. Arguing on this note, Akpomi (2009) agreed that the process of entrepreneurship has without doubt become one of the most widespread and extensively taught subjects in many of the higher institutions of learning across the world. Entrepreneurship has become widely taught in higher learning institutions, in order to assist graduate students and aspire them to start their own businesses and mould their entrepreneurial intentions in order to cope, control and operate their entrepreneur activities in the future.

Entrepreneurs often establish small and medium enterprises (SMEs), the importance of SMEs was exhibited by Eurostat (2017) who stated that SMEs were a vital method for new entrepreneurs to commercialise their business ideas. According to Buame (1996) entrepreneurship is a critical player in reaching economic development and transformation in a country. As entrepreneurs are the ones that tend to be creative in finding new ways to use the available resources, improve existing products and be innovative (Buame, 1996)

According to Audretsch and Thurick (2004) the increase attention given to entrepreneurship comes from different factors on the top comes the effect of globalisation, corporate downsizing and the development of knowledge-based economy.

The correlation between entrepreneurship as well as employment has been studied in several literatures. According to Audretsch et al., (2007) increase rates of entrepreneurship usually leads to lower rates of unemployment, this conclusion was based on an evaluation of 23 OECD nations between the years 1984 and 1994. Another study conducted in Sweden also found out a positive relationship between self-employment and the overall rate of employment (Fölster, 2000).

It is also worth noting that it is not only the unemployment rate, which is correlated and affected by entrepreneurship, but also the entire aspect of the community. Reynolds' et al (2004) study has established that many of the countries with high levels of entrepreneurship also have high levels

of economic development, and life standards, same results were attained by Galindo and Mendez (2014). Other researchers even argue that if nations fail to develop their entrepreneurial capacities, they will most likely miss possibilities for economic development and growth (Stevenson and Lundström, 2007). In addition, Alsos et al., (2012) investigation undertook a cost benefit analysis of the Norwegian government, which indicate that societal impacts could be due to an increase in the level of entrepreneurship activities. Alsos et al., (2014) also argue that people who receive social security, and those who are unemployed decides to take a step into self-employment, then there are greater societal gains for this even if it is a marginal business endeavour. Additionally, Alsos et al., (2012) study also report on the economic benefits the society would gain, but argued that it is equally important to put emphasis on the socio-economic benefits that comes along with reduced rates of unemployment and living standards improvement and economic growth. According to Kolawole and Torimiro (2005), entrepreneurship is the employment formation and economic growth foundation; it can enhance living conditions of individuals. Hence, Inyang and Enuoh (2009) argue that the process of entrepreneurship adds a lot of value to the community, while at the same time it encourages change, and transform the socio-political or socio-economical life of people. Chavez et al. (2017) referred to the case of the US and provided strong qualitative evidence in favour of the fact that entrepreneurs can produce meaningful innovations. In turn, these innovations could directly benefit the society and result in economic boom. A complementary perspective was adopted in the study of Magdaraog (2015) who claimed that graduate entrepreneurs are required to possess a global mind set, which is based on the principles of cultural sensitivity, enhanced human relations and inter-cultural leadership.

## **2.5 Entrepreneurship and Intention**

Intentionality is considered an important variable in determining entrepreneurship (Katz and Gartner 1988), no entrepreneurial actions are formed without an individual having the intention of doing it (Urban, 2010). According to the Global Entrepreneurship Monitor (GEM) intention is viewed as an early stage of the entrepreneurial process.

Intention is defined by Bird (1988) as the state of one's mind, which directs an individual towards the idea and steps of taking a particular action. According to Vesalainen and Pihkala, (2000) intention directs one's attention towards a particular path or course of action in efforts to achieve

a specific goal. Intention is not the expectation of future action but instead it is proactive dedication for the future course of action to be accomplished (Bandura, 2001). By that, intention can be said to be an intellectual illustration of both the goal an individual is striving for and the action plan one intends to use to reach the objective (Tubbs and Ekeberg 1991). Intention embodies an important characteristic to understand the way individuals act (Fayolle et al., 2005), it is the indicator of people's willingness to work hard to perform a certain behaviour (Ajzen, 1991; Lortie and Castogiovanni, 2015).

Entrepreneurship consists of different phases, where intention is the main component that initiates all other phases (Hirschi 2013). The starting point for a new venture creation is considered to be the intention and willingness to have an entrepreneurial career (Kolvereid, 1996; Krueger et al., 2000; Schlaegel and Koenig, 2014; Van Gelderen et al., 2008), thus the decision to become an entrepreneur is considered voluntary and conscious act (Krueger et al., 2000), and the intention to start-up is a necessary precursor to perform entrepreneurial behaviour (Kolvereid 1996, Fayolle et al., 2006). In this context, entrepreneurial behaviour is said to be intentional, where individuals do not start a business spontaneously, but it might be a response to existing conditions. Entrepreneurship is the process of discovering, assessing and exploiting opportunities and needs (Shane and Venkatarman 2000), where the identification of such opportunities is related to intention first (Krueger et al. 2000).

Some researchers claim that the process of studying entrepreneurial intention has some limitations related to the uncertainty that the intended behaviour will be transformed into actions (Kautonen et al., 2015; Turker and Selcuk 2009; Krueger et al., 2000). However, others claim that entrepreneurial intention study is reliable as intention is recognized as the antecedent of an entrepreneurial action (Autio et al., 2001). As mentioned by Ajzen and Fishbein (2005) entrepreneurial intention represents the likelihood of venture creation as individuals tend to stick to their intention when it comes to actual behaviour. Thompson (2009) claimed that individuals with higher entrepreneurial intention are more likely to be entrepreneurs compared to individuals with low entrepreneurial intentions.

The current study will adopt an intention-based model to help in recognizing the factors that affect one's intention towards entrepreneurship in Lebanon. Intention based models can provide a deep

insight into any planned behaviour, which is the case of entrepreneurship. Kautonen et al., (2013) found that 80% of individuals who started their venture, had previously reported a positive intention to do so.

## **2.6 Models of Entrepreneurial Intention**

Entrepreneurial intention is a necessary step towards achieving an entrepreneurial action (Fayolles's 2003). Intention models bear to explain as well as predict entrepreneurial activities among groups of people, by studying various precursors of business creation and growth in addition to the factors that affect these acts (Krueger et al., 2000).

Early studies on entrepreneurship and the factors affecting the decision to start a new business focused on personal traits of an individual such as risk taking, propensity, locus of control, need for achievement and tolerance of uncertainty and demographic variables (Robinson et al., 1991; Katz and Gartner, 1988; Low and MacMillan, 1988; Brockhaus and Horwitz, 1986). In its ultimate case it means that individuals are pre-programmed robots with no individual choice, which is not realistic (Autio et al., 2001). Trait-based approach was criticised as it did not prove to be reliable as expected, due to the absence of theoretical perspective (Veciana et al., 2005; Ajzen 1991; Gartner 1989; Shapero and Sokol 1982; Robinson et al., 1991) and low explanatory ability in methodological analysis (Linan et al., 2005). The trait-based approach characteristics are not seen as exclusive for entrepreneurs; however, they are also parts of all successful people (Gartner, 1989; Shane & Venkataraman, 2000, Boyd and Vozikis 1994). As explored by Ajzen (1987) "trait measure" only explains about 10% of the variance in behaviour.

Since 1990s attitude approaches spread as an alternative to personality theories in studying entrepreneurial intention (Douglas 1999; Reitan 1997; Shaver and Scott 1991). As Low and MacMillan (1988) explained that "a new perspective that focus on the cognitive concept towards a more contextual and process-oriented based on intentions models were presented" (p.146).

By exploring the literature on entrepreneurial intention, it is found that it is mainly divided into two strands. The first comes from social psychology, which tends to analyse behaviours by concentrating on the mental process starting from attitudes and beliefs to effective action, while the second strand is specifically related to the field of entrepreneurship (Linan and Fayolle, 2015).

The below section discussed the two dominant and popular theory- driven entrepreneurial intention models used by researchers; Shapero and Sokol (1982) Model of Entrepreneurial Event and Ajzen's (1991) Theory of Planned Behaviour. These two models appear to be the most complete, extensively and empirically tested models to explore entrepreneurial intention (Kautnen et al., 2015; Fayolle and Linan, 2014; Schlaegel and Koenig, 2014).

### **2.6.1 Theory of Planned Behaviour**

The Theory of Planned Behaviour owes its origin to the Theory of Reasoned Action (TRA) formed by Icek Ajzen and Martin Fishbein in 1975. TRA was designed to explain the relation between attitudes and behaviours within actions, to foresee an individual's intention of participating in a certain behaviour at a time and place. It argued that people who assess their behaviour as being positive and think that people around them want them to perform a specific behaviour would lead to a higher intention, and they are more likely to do pursue the behaviour (Ajzen, 2005).

By that, the theory of reasoned action believes that behavioural intention is resulted from two factors, attitudinal factor which is related to personal attitude towards a specific behaviour and normative factor which reflects the way individual perceive how the society think about the action they choose to take (Vallerand et al., 1992). The stronger the positive attitudes and norms are toward a behaviour, the stronger the behavioural intention is, in addition the intention is high, the individual is likely to perform the specified behaviour (Ajzen 1991).

During 1985, TRA was further developed by Ajzen where a third determinant of behavioural intention known as perceived behavioural control was added to the model. The model was known as Theory of Planned Behaviour it includes three attitudinal antecedents of intentions; attitude which is how the individuals evaluate their behaviour as positive or negative, it is affected by individuals' view towards the outcome of the behaviour. Subjective norms which is the way individual's reference group such as family and friends think about accomplishing a specific behaviour, it is others view of the behaviour. Whereas, the major advance over the TRA is the perceived behavioural control, which is the individual's confidence on his/her capability to accomplish a specified behaviour (Ajzen, 2002). According to Ajzen, attitude towards a behaviour and social norms explain motivational factors whereas perceived behavioural control is a non-motivational factor.

The Theory of Planned Behaviour was first applied to the field of entrepreneurship in 1993 by Krueger and Carsrud (Fayolle 2007), relating TPB to entrepreneurship; personal attitudes denote to whether the person evaluates the idea of being an entrepreneur as either negative or positive. Negative expectations such as perceiving risk associated with entrepreneurial activities impact the intent to start own business adversely (Choo and Wong 2006; Vanevenhoven and Liguori 2013). Subjective norms deal with the societal pressures that are largely connected into becoming an entrepreneur, and whether the surrounding family, relatives and friends would be in support of such a decision. Whereas, the perceived behaviour control can also be named as entrepreneurial self-efficacy, which is all about the individual's perception of his or her own ability concerning being an entrepreneur (Liñán and Chen, 2009). Many researchers supports the role of entrepreneurial attitudes, subjective norms and perceived behavioural control in predicting entrepreneurship behaviour (e.g.,Li 2007; Krueger et al. 2000; Engle et al. 2010; Pihie and Bagheri 2011).

### **2.6.2 Entrepreneurial event model by Shapero**

Shapero (1975) is the first researcher to establish a conceptual cognitive model related to entrepreneurship. Before Shapero's model researchers interested in entrepreneurship intention mainly highlighted on psychological profiles, traits and behaviour, which explain a small fraction of entrepreneurial intentions' variation. Practical applications of intent models remained limited until 1990's, even Shapero's model persisted untested until Krueger's (1993) study. This model offers enlightenment the processes that lead to the formation of a new business (Kollmann and Kuckertz, 2006). The entrepreneurial event model (EEM) assumed that an individual has a life path and there are directed forces that push individuals towards a specific direction which leads to change in life path. Shapero and Sokol named such forces as "displacement", which may be positive and acts like pull factors to attract individual towards starting a business, such as financial support. The displacement may be negative, such as being fired, organizational changes, being insulted, job dissatisfaction. The mentioned elements act as a push factor toward starting a business. According to Shapero and Sokol (1982) the intention of starting a new business begins from perceptions of desirability and feasibility and propensity to act. Shapero and Sokol (1982) also explained that for an entrepreneurial event to occur the individual needs to have a positive desirability towards it, which is affected by the social and cultural environment. Perceived



desirability refers to the degree an individual feel attracted to become an entrepreneur, it reflects an individual preference for this behaviour. Furthermore, Shapero and Sokol believed that there are factors that influence individual's perception of what is attractive or desirable and what is not, they defined mentors, peers, family, colleagues, culture, and previous work experience as factors that affect personal values. Moreover, perceived feasibility also affects the intention towards being an entrepreneur, it specifies the degree to which an individual personally feels able to pursue a behaviour such as starting a business. It is influenced by an individual's perception of available resources such as financial and education support (Gasse and Tremblay 2011; Krueger et al., 2000). Whereas, propensity to act; refers to individual ability or tendency to act on one's decision (Krueger, 1993). There is no specific way to measure tendency to act, Shapero and Sokol (1982) suggested an internal locus of control as a measure, where other authors related measurement to "learned optimism" (Krueger et al., 2000), risk-taking propensity or tolerance of ambiguity (Kermit, 2008).

### **2.6.3 Theoretical framework of the research**

The theory of planned behaviour (TPB) is used as theoretical framework in the current research. Autio et al., (2001) revealed that the TPB components explain 21% of the variance in entrepreneurial intention, whereas Linan and Chen (2009) found it to explain 55% of the variance.

Researchers confirmed the accuracy and applicability of TPB in explaining entrepreneurial intention in different cultures and context (Kautonen et al., 2015; Rae et al., 2012; Engle et al., 2010; Yordanova and Tarrazon, 2010; Van Gelderen et al., 2008; Kolvereid and Isaken, 2006; Scholten et al., 2004; Luthje and Franke 2003; Fayolle 2002; Autio et al., 2001).

It has also been empirically tested and validated in many studies regarding TPB ability to predict entrepreneurial behaviour (Ajzen and Cole, 2008; Zerbinati and Al Laham, 2007; Souitaris et al., 2007; Frazier and Niehm, 2006; Ajzen et al., 2004). Van Gelderen et al., (2008) supports the use of TPB over EEM, as it provides consistent and more detailed specifications. In addition, based on a meta- analysis on 185 empirical studies Armitage and Conner (2001) found that TPB is effective in predicting intentions and behaviours. Pihie and Bagheri (2013) found the same results and emphasized that researchers mainly used the theory of planned behaviour to investigate and explore individuals career choice specially students. Moreover, Schlaegel and Koenig (2014) in

the meta- analytical test suggested integration between TPB and EEM in order to achieve a higher explanatory power, however, the strong relationship between the constructs is applied in non-student samples and in western context. In order to prevent this research to have a low explanatory power, TPB was used since the study examines the Lebanese context which is not a western country, and it focuses on students as the main sample of the study.

## **2.7 Entrepreneurship Education and University Environment**

Education is considered a critical instrument in attaining a nation's change, it is the main element for social, economic and political level transformation (Gautman and Sigh, 2015; Luhanga 2009; Minniti et al., 2006). Education provides the skills, knowledge and capacity of human capital and is considered "the foundation for straightforward transitions to the labour market" (Hutchison and Kettlewell, 2015, p. 117).

Identification of education importance by policymakers pushed them to provide greater focus on the role it plays in the development of entrepreneurial skills (European Commission, 2006; UNESCO, 2013). Education in general and entrepreneurship education in specific, create jobs which generates economic development and enhances a country's standard of living. (Singer et al., 2015). International Labour Organization (ILO, 2009) stressed on the role higher education institutions play in producing knowledge required to reach economic and social development.

### **2.7.1 Definition and importance of entrepreneurship education**

Literature on entrepreneurship supports that entrepreneurship education is an important factor in building up students' attitudes and intention towards entrepreneurship (Chang and Rieple, 2013; Rae et al., 2010; Cruz et al., 2009; Adejimola and Olufunmilayo, 2009; De Pillis and Reordon, 2007; Zhao et al., 2005; Formica, 2002). In addition, European Union insisted on the essential role education plays in developing entrepreneurship and encouraging students to choose an entrepreneurial career (Block et al., 2011). Other researchers emphasised on the importance of developing individuals mind and skills towards entrepreneurship (Lee, 2006; Formica, 2002). Reynolds et al., (1999) found that "appropriate education and training programmes in entrepreneurship can be expected to increase the number of people becoming entrepreneurs, owing the belief that a better educated population will achieve a higher level of entrepreneurial activity" (p.26). Currently there is an increasing number of colleges and universities that are offering

different courses, programmes and entrepreneurship majors (Rae et al., 2012; Kuratko, 2005). Such growth is a reflection of governmental belief on the important role entrepreneurship can play in the development of socio-economic infrastructure. Teaching entrepreneurship started with Shigeru Fijii in 1938 at Kobe University in Japan (Mwasalwiba, 2010). Afterwards, in 1947 the first entrepreneurship course was introduced in USA at Harvard Business School by Myles Mace. With the spread in the number of universities providing entrepreneurship courses worldwide, researchers raised concern regarding whether entrepreneurship can or cannot be taught. Some believe it is impossible to teach entrepreneurship, as an entrepreneur is related to individual's personality and psychological characteristics (Fayolle et al, 2008; Thompson, 2004). Others argue that like medicine, law, engineering and teaching; skills can be taught, however not all skills learners are talented, and this is the case with entrepreneurship (Hindle, 2004; Mwasalwiba, 2010). The importance of entrepreneurship education raised after several researchers proved that entrepreneurship can be taught and learned, and it affects individuals' intentions towards entrepreneurial activity (Gerald and Saleh, 2011; Kuratko, 2005; Henry et al., 2003; Gorman et al., 1997). Entrepreneurship education and training provide individuals with the mindset and skills required to get into entrepreneurship field (Block et al., 2011; Nabi and Linam, 2011). Absence of a unique entrepreneurship definition brings conflicts in defining entrepreneurship education (Fayolle, 2007). Arguments exist regarding the meaning of entrepreneurship education and enterprise education (Garavan and O'Cinneide, 1994). Enterprise education is related to the development of individual's behaviours that enhance the ability to generate creative ideas and required practical skills (Rae et al., 2012), and that can be delivered through a pedagogical approach (Hartshorn and Hannon, 2005). Whereas, entrepreneurship education is the application of enterprise education through venture creation (Rae et al., 2012), the programme or module that provides additional knowledge and abilities individuals need to open a new venture (Williamson et al., 2013). Entrepreneurship education is characterized as an institution that teaches "the skills, knowledge and attitude for people to go out and create their own ventures and solve their own problems" (Jamieson 1984, p.19, cited in Faoite et al. 2003).

According to Nurmi and Paasio (2007) entrepreneurship education in Finland is named as enterprise ownership and intrapreneurship, whereas in Great Britain and Ireland it is called enterprise education. The focus of the education is on building individual's capacity and not only on the establishment of venture. However, Gibb (1993 as cited in Frank et al., 2005) believed that

the two terms only differs in the contextual meaning but not on the conceptual level which they are similar. According to Jones and English (2004) entrepreneurial education is the right term to use instead of entrepreneurship education, where it is “a process of providing individuals with the ability to recognize commercial opportunities and the insight, self-esteem, knowledge and skills to act on them” (Jones and English, 2004, p. 2). Mitra (2011) explained that even if there are different definitions to entrepreneurship, it is linked to creativity, innovation and change, which are critical elements to reach competitiveness in the current globalized economy. Entrepreneurship is not only about opening and starting a business, individuals that have entrepreneurial skills are highly valued in large companies, public and voluntary sectors (Bamber et al., 2002) and are considered as a factor of production. According to Gautman and Singh (2015) most researchers indistinguishably used the terms entrepreneurship education, enterprise education and entrepreneurial education. Kuratko et al., (1997) defined entrepreneurship education as the process of training individuals for uncertain future. Most researchers defined entrepreneurship education as encouraging and developing entrepreneurial attitude and skills (Co and Mitchell, 2006; Henry et al., 2005; Galloway et al., 2005; Hytti and O’Gorman, 2004; Kirby, 2004; Bechard and Toulouse, 1998).

According to Linan (2004) entrepreneurial education is all the activities and training within the educational system that enhances the intention of individuals towards entrepreneurial behaviours.

Since entrepreneurship is related to the capability of individuals to turn creative and innovative ideas into action, we can say that entrepreneurship education is the process of creating a suitable environment that encourages individuals to implement ideas into reality through providing required knowledge, attitude, skills and competencies. Entrepreneurship education promotes creativity, independency in thinking, risk taking, taking responsibility, and valuing diversity (Gautman and Sigh, 2015). The importance of entrepreneurship education is not only related to the encouragement of venture creation, but it is related to the development of an entrepreneurial culture (European Commission, 2011). It includes different activities to foster entrepreneurial mindsets, attitudes and skills by teaching a range of aspects such as idea generation, start-up, growth and innovation (Fayolle, 2009; Matlay and Mitra 2002). According to ECOTEC (2010) entrepreneurship education should be present as a refrain in universities rather than a separate subject. Thus, educators’ role needs to be changed from communicators of knowledge to facilitator

of learning (European commission, 2013; World Economic Forum, 2009). This requires educators to use practical information from the real world, relying on active learning method where students are responsible for their own learning (Gautam and Sigh, 2015).

To this extent the World Economic Forum (WEF) introduced and emphasized the need and importance of entrepreneurship education for boosting global awareness and creation (WEF, 2009). In this regard WEF has focused on the following aims (2009, p.9):

- Highlight and raise awareness of the importance of entrepreneurship education spurring economic growth and achieving Millennium Development Goals.
- Consolidate existing knowledge and good practices in entrepreneurship education around the world to enable development of innovative new tools, approaches and methods.
- Provide recommendations to government, academia and private sector and other actors on the development and delivery of effective education programs for entrepreneurship.
- Launch a process in which recommendations can be discussed on global, regional and national levels and implemented with the involvement of key stakeholders.

### **2.7.2 Entrepreneurship Teaching Methods and university Environment**

Research shows that entrepreneurship teaching method relies on experience and discovery (Pittway & Cope, 2007; Gibb, 1996; Fayolle & Gailly, 2008; Kirby, 2004; Neck & Greene, 2011). Mwasalwiba (2010) identified twenty-six entrepreneurial teaching methods, where the most effective are game simulations (Hindle, 2002), video and filming method (Verduyn et al., 2009), case study (Keogh & Galloway, 2004), workshop and project method (Bennett, 2006; McMullan & Boberg, 1991), additionally group discussions & team-based learning (Michaelsen and Sweet, 2008). Educators play an important role in influencing entrepreneurial attitudes, ASE report (2014) indicated that raising teacher's awareness about entrepreneurship increases the chance that they will be more motivated towards entrepreneurial activities. The environment for entrepreneurship education should be based on "conductive learning" that aims to improve students' ability to handle lack of certainty and complexity, and promote effective entrepreneurial behaviours (Gibb, 2002). Since entrepreneurship is based on a continuous changing environment, it is important to

get students used to unknown realm that needs continues learning. According to Lober (2006) entrepreneurs need to create different road maps to find answers and solutions for their business, to build entrepreneurship education road which rely on open learning approaches to students. Table 2.1 shows a comparison between business education and entrepreneurship education based on the work of Lober (2006).

**Table 2. 1:Comparison of Business Education and Entrepreneurship Education**

<b>Concept</b>	<b>Business Education</b>	<b>Entrepreneurship Education</b>
Focus	Knowledge	Process
Teaching	Knowledge transfer	Support for learning
Goal	Providing broad knowledge	Learning for life, self-control and self-control ability.
Learner's role	Passive consumer	Active producer
Teacher's role	Transmission of content	Learner's assistant
Information source	Textbooks and teacher	All sources are available
Information Inducement	Curriculum set by teacher	Student's demand
Who governs learning process?	Teacher	Student
Interaction	Teacher, student	Student, teacher
Activities	Listening and reading	Doing, thinking and talking

**Adopted from Lober (2006, p.24).**

University environment also plays an important role in motivating students towards entrepreneurship (Lee & Wong, 2004), it is related to the university's entire entrepreneurial ecosystem. Literature review confirms the role of higher education institutions can play in affecting entrepreneurial intention of students as they provide the required resources and services to ensure a positive attitude between its students regarding entrepreneurship (Shirokova et al., 2016; Trivedi, 2016; Zhang et al., 2014; Liñán et al., 2014; Turker and Selcuk, 2009). University can provide its students with services that are of high importance for engaging them in entrepreneurial activities such as technology transfer, business incubation services and intellectual property transaction (Audretsch, 2014). Huyghe and Knockaert (2015) indicated that university culture and environment shape students' attitudes towards entrepreneurship.

According to Princeton Review (2020) University of Houston is the top institution on entrepreneurial teaching, it provides students with nine custom designed courses, students work in developing and marketing real products, they also work with Intellectual Property from the University of Houston Research Group and operate real retail businesses (BAUER, 2020). Babson College is also one of the top educational institutions that focuses on empowering students to be entrepreneurial leaders, by collaborating with and learning from others to accomplish a common goal or create an original work, it helps students in developing and expressing ideas strategically through written, oral and visual formats. In addition, it also helps students in analysing and assessing ideas and data to be decision makers (Babson, 2020). Brigham Young University trains students to manage uncertainty by recognizing sources of uncertainty and applying principles of search and testing to resolve the uncertainty faced in the entrepreneurial environment, innovation is applied to solve real world problems and create and manage new businesses (BYU, 2020).

The common between these institutions is that its curriculum reflects the latest academic thinking and research in the entrepreneurial field and its augmented with real world experiential learning components and frameworks.

## **2.8 Review of Research Studies in Entrepreneurial Intention Determinants**

The previous section of this literature review demonstrated the importance of entrepreneurial intention in pushing entrepreneurs toward their business decision. However, it is appropriate to refer to the core paradigms of entrepreneurial intentions to conclude the overall discussion

regarding entrepreneurship. Emphasis is made on the drivers of entrepreneurial intention to analyse how entrepreneurial intention may be enhanced by outside stakeholders such as the government and universities. One such framework of the factors influencing entrepreneurial intention was suggested in the work of Miranda et al. (2017), who found nine important entrepreneurial characteristics, namely creativity, subjective norms, attitudes, perceived control, perceived utility, self-confidence, business experience, training and the business environment. Maresch et al. (2016) demonstrated the value of entrepreneurship education (EE), this training had a direct effect on attitudes, subjective norms and the perceived behavioural control. Premand et al. (2016) opinionated that entrepreneurial academia was a valid method of improving business skills, but effects on other drivers of intention (e.g. personality) were mixed. The main implication of this contrast was that education was not enough to ensure a consistently high level of intention.

Adekiya and Ibrahim (2016) analysed a wide panel of developed and developing economies, the authors were able to conclude that the overall cultural perceptions of entrepreneurship depended on the economic and political conditions within a given nation (Crecente-Romero et al., 2016). For example, emerging economies such as Peru had a positive stance towards entrepreneurship due to the necessity of starting new businesses to achieve personal goals while such developed countries as Japan exhibited a lower degree of entrepreneurship acceptance due to access to high-paying wage jobs (Crecente-Romero et al., 2016). On the other hand, the researchers did not explain how these factors interplayed with other drivers of entrepreneurial intention. Devece et al. (2016) also agreed with Crecente-Romero et al. (2016) and implied that entrepreneurship was perceived as a more valuable activity at the times of economic recession and crises.

In addition, culture, family and gender can be perceived as important characteristics contributing towards entrepreneurial intentions. This was rationalised by Sasu (2015) who provided strong evidence in favour of the fact that men had higher entrepreneurial intentions than women due to their drive to earn more money. Women, on the other hand, were oriented by intangible goals and self-identify (Sasu and Sasu, 2015). At the same time, although other scholars acknowledged that there existed substantial differences between male and female entrepreneurs, there was little agreement on how these differences were expressed. More specifically, Suarez-Ortega and Galvez-Garcia (2017) uncovered that women in developing economies (e.g. Andalusia) had little access to paid jobs and vacations. This necessitated the formation of their own business ventures or



turning to self-employment. Regarding the dimension of entrepreneurship education and training, Tiago et al. (2015) noted that entrepreneurial academia served as one of the key drivers of fostering entrepreneurial intentions, putting pressure on the institutions of graduate education. Nonetheless, the researchers failed to consider specific curricula and effective teaching techniques. Sondari (2014) complemented the findings of Tiago et al. (2015) by showing that entrepreneurial education improved entrepreneurial competencies and the attitude held towards entrepreneurship, which explained enhanced intentions to become entrepreneurs after graduating. On the other hand, Sondari (2014) acknowledged that it was not enough for entrepreneurial education to focus on single phenomena or skill. Instead, these academic efforts had to include a wide variety of fields to prepare the future entrepreneurs for operating in a highly uncertain global business environment.

The role of entrepreneurial training to intention was also highlighted in the inquiry conducted by Olugbola (2017). The researcher provided strong quantitative evidence of the fact that entrepreneurial education (either formal or informal) had a positive effect on the entrepreneurial readiness of youth.). That said, it was also highlighted that graduate entrepreneurs had to be provided with suitable resources to successfully transform their intentions into actual behaviours (Olugbola, 2017). This is consistent with the resource-based view of the firm framework, in which it was noted that such assets as financial resources were vital for firm success (Barney, 1991). Indirect support to the above criticism was also presented in the work of Yildirim et al. (2016).

Zampetakis et al. (2017) employed quantitative data to show that it is possible to influence attitudes and intentions towards entrepreneurship through affecting their emotional states. A similar point was made in the study of Zampetakis et al. (2015), lending further rationale to the fact that increased self-efficacy had a positive effect on entrepreneurial intentions. Nonetheless, Zampetakis et al. (2015) also observed a contrasting effect in that many of the study participants had negative expectations regarding the foundation of their first business due to the risks associated with this the startup. In turn, this may have had a negative impact on intention (Zampetakis et al., 2015).

Additional rationale to the idea that self-efficacy is important for entrepreneurial intention was provided by Holienka et al. (2016). The researchers focused on quantitative data and uncovered that both necessity- and opportunity-driven entrepreneurship intention was significantly affected

by self-confidence (Holienka et al., 2016). Another critical success factor was knowing another entrepreneur who could provide verbal persuasion and serve as a source of vicarious experience (Holienka et al., 2016). On the other hand, while it is challenging to debate the influence of self-efficacy on entrepreneurial intentions, it can be argued that this relationship is not always positive. For instant, Cacciotti et al. (2016) referred to fear of failure in entrepreneurship and asserted that this somatic and emotional state had a negative impact on both intentions of entrepreneurs and their actions. That said, it can also be suggested that fear of failure is a powerful motivator influencing graduates to become entrepreneurs to avoid negative outcomes in other areas of life (Cacciotti et al., 2016).

An analogous result was uncovered in an appraisal of the entrepreneurial personality traits and intention, which was described by Mat et al. (2015). The most important critical remark is that neither Colakoglu and Gozukara (2016), nor Mat et al. (2015) considered whether the outlined individual characteristics were exclusively intrinsic or could be fostered within academic institutions.

Furthermore, Burns (2014) suggested an integrated framework of the five core entrepreneurial personality attributes. According to Burns (2014), entrepreneurs had to exhibit high levels of need for independence and achievement, creativity, acceptance of risk and the internal locus of control. Empirical support to the above traits was given in the investigation conducted by Panc et al. (2012). The scholars voiced an opinion that although graduate entrepreneurs were not smarter than their peers, these individuals were able to achieve success due to their highly independent thinking and solution-seeking mechanisms. However, Panc et al. (2012) also complemented the approach of Burns (2014) by adding optimism as a notable entrepreneurial attribute. Optimism may be a driver of opportunism, lending credence to the outcomes of Panc et al. (2012)

## **2.9 Understanding the context of Lebanon**

### **2.9.1 Historical Background**

Lebanon is a small Arab country located in the East Mediterranean, in the past it has been mentioned as the ‘Switzerland of the East’, and ‘Paris of the Middle East’ World Bank estimated population of Lebanon at around 6.1 million in 2018 (World Bank, 2019), spread over an area of 10,452 square kilometres. Lebanon is the only country in the Middle East that its population is

equally distributed between Muslims and Christians, which it comprises of 18 ethnicities. Lebanon witnessed several security and political instability throughout the years, this caused distraction and heavy loss and economic instability for the country (Stewart, 2012). After World War I (1914-1918), Lebanon became under the French control till 1943 after it have been ruled by the Ottoman Empire since the 16<sup>th</sup> century. Following that, civil war began in Lebanon from 1975 till 1990, between Muslims and Christians, and during the same period, Lebanon witnessed Israel-Lebanon war 1982 (Telegraph, 2003). After the end of civil war, Rafik Hariri was announced prime minister in 1992 during the 1<sup>st</sup> election since 1972 Rafik Hariri demonstrated Lebanon's economic and political rebirth post-civil war; however, his goal of rebuilding Lebanon was not completed as planned; Hariri was killed in a car bomb in 2005 (Dahdah, 2005). After the association of Rafik Al Hairi, Lebanon witnessed "Cedar Revolution" and it got free from Syrian control. Afterwards, Lebanon entered politics paralysis and confessional system (Stewart, 2012). In July 2006 Israel started its war against Hezbollah in Lebanon (Hersh, 2006). Additionally, the Arab Spring- Syrian war that started in 2011 had a share in Lebanon's political instability. The impact of the crises in Syria and the refugees in Lebanon is estimated to be mostly negative, 40% of primary healthcare visits were made by Syrian refugees, which increase the pressure on healthcare staff and equipment in Lebanon, low skilled wages and incomes are also affected with the increase in labour market competition mainly in agricultural services and construction sectors. Moreover, Lebanon's Tourism was affected by the regional insecurity (UNHCR, 2013) noting that Lebanon is a service-based economy. In addition, during that period Lebanon's export to its main trading partners (Egypt, Jordan, Iraq, Kuwait, Qatar, Saudi Arabia, South Africa, Syria, Turkey, United Arab Emirates) decreased by \$1,313,039,000 from 2011 till 2015. Exported and imported goods and products are no longer allowed to pass through Syria (Ministry of Economy and Trade, 2016).

War and political violence were a major driver for many Lebanese to emigrate outside the country. An additional driver for high number of emigrations was the consequences of war, such as currency devaluation, hyperinflation, and increase in unemployment rate specially among youths (Fersan, 2011). During the 19<sup>th</sup> century, Lebanese mostly migrated to Latin America. However, today, highly skilled Lebanese mainly choose to move to Arab Gulf countries such as Bahrain, Kuwait, Qatar, Saudi Arabia and United Arab Emirates (Migration Policy Center, 2013). Official UN statistics indicate that, in 2015, around 1.9 million Lebanese (out of total population of 4.5 million) holders of the Lebanese nationality live abroad. Despite the loss of human capital, talent and

knowledge, Lebanon benefit from diaspora remittances, in technology transfers and development aid from international communities (Di Bartolomeo, et al., 2010). Remittances play an important role in Lebanon's financial inflows and affects Lebanon's economy positively. Remittances inflow to Lebanon reached \$7.6 billion in 2009 and decreased in the immediate aftermath of the Arab Spring to \$6.9 billion in 2011 and increased again to reach \$7.5 billion in 2015 (World Bank, 2015). Around half of the remittances are received from Arab Gulf countries, which are then spent locally and deposited in Lebanese banks (Tierney, 2015). Lebanon also recorded huge number of immigrants; in 2014, it was recorded that Lebanon hosts 449,957 Palestinians refugees displaced as a result of the 1948 and 1967 Arab-Israeli wars (UNRWA, 2014) the previous number include, 53,070 Palestinian refugees from Syria who fled to Lebanon searching for safety as a result of the 2011 Syrian crisis. Half of the Palestinian refugees in Lebanon live in 12 refugee camps scattered over the country. It is noteworthy that Palestinian refugees in Lebanon have the highest percentage of absolute poverty. Moreover, Lebanon has the highest number of registered Syrian refugees in the world; it reached 1,067,785 (UNHCR, 2016). October 17, 2019 saw Lebanese civil protests all around the country, it was first triggered by the government plan on increasing taxes on gasoline, tobacco and online phone calls such as the ones conducted using WhatsApp (Daily Star, 2019). However, protests expanded to target economic recession, high unemployment, corruption in public sector and failures by governments to provide basic services to the Lebanese such as electricity, sanitation and water (Noueihed and Khraiche, 2019).

### **2.9.2 Economic and Fiscal Background**

The Lebanese economy is facing a slowed down growth since 2011, after it recorded a high growth level between 2007 and 2010, reaching an average of 8% (IMF, 2019). The country's GDP is \$58.57billion during 2019 with a 0.2% annual growth, indicating a deceleration in the economic activity. Current fiscal deficit is high, expected at -10.1% GDP. Lebanon has also a high budget deficit which has a high effect in the Lebanese economy. Budget deficit started with the beginning of civil war in 1975, where government revenues declined, and expenditures increased. In 1990, post- civil war period, Lebanon deficit kept raising due to government expenditure for rebuilding country's infrastructure. Today, the country is ranked as the third most indebted country in the world, with a public debt estimated at \$86billion reaching 150% of the GDP. The dominant sector in the Lebanese economy is services, where it contributes to 73.3% of the country's GDP, whereas

industry and agriculture contributes to 21% and 5.7% respectively (CIA, 2018). Regarding unemployment, it is difficult to find the exact rate, as data availability in Lebanon and access to information is highly problematic, mainly due to the fact that the statistical system is weak in terms of low quality, poor reliability and limited availability of data (WBG, 2015). The World Bank Data (2019) estimated unemployment rate to be around 6.2% in 2018, this estimation is based on the findings of the labour force surveys (LFSs). LFSs, however, are sporadic in Lebanon; the last LFS was conducted by the Central Administration of Statistics (CAS) in 2009 (CAS, 2009). The United Nations Economic and Social Commission for Western Asia observed that the periodicity of labour force survey in Lebanon is “ad-hoc” (ESCWA, 2013). A different unemployment rate was announced by the Lebanese Minister of Labour Mohammad Kabbara, declared unemployment rate in 2018 to be 25%, with youth unemployment exceeding 37% (Hamadi, 2019). A different rate was announced by the Lebanese president General Michel Aoun in 2018 where he stated that “unemployment has increased to reach an alarming 46 percent” (Daily Star, 2018). Regardless of the different estimated rates, Lebanon faces employment challenges; around 23,000 Lebanese on average enter the labour market annually, however the economy needs to create more than six times the number of jobs it is currently creating (Borgne and Jacobs, 2016). The country’s economy structure also plays pressure in the creation of jobs, in the past 20 years the Lebanese economy drifted away from agriculture and industry sector to low productivity service sectors such as food services, accommodation, transportation (UNDP, 2016). High unemployment rate along with critical political, economic and social situation and poor living standards, increases the number of emigration of Lebanese specially youth and graduates. It is estimated that around 40% of male and 30% of female graduates emigrates from Lebanon (World Bank 2014), thus leaving the country with an additional problem “brain drain” or what is called “talent migration”. According to Global Competitiveness Index (2016) Lebanon is ranked 120 out of 144 countries in brain drain losses.

### **2.9.3 Business Environment**

According to the Ease of Doing Business index, that ranks countries ability to provide an encouraging suitable regulatory environment for business operation. Lebanon face an unconducive business environment. For 12 years Lebanon’s ranking declined to 143 out of 190 economies during 2019, compared to 87 in 2006 (World Bank, 2019). This decline is related to corruption in

the country, according to Transparency International report in 2019 Lebanon rated 138 out of 189 countries in terms of corruption perception (Transparency International, 2018). Excessive regulations for start-ups limit the ability and discourage individuals to stay in their home country for opening their business. Regarding the quality of infrastructure, Lebanon faces huge challenges, and it is extremely behind its neighbours. The quality of electricity supply is bad; it is in the top four worst country around the world according to the World Bank (2019b). Electricite du Liban (EDL) is responsible for electricity sector and it operates under the Ministry of Energy and Water (MEW). Electricity supply is not enough, according to World Bank (2019) during 2018 it only provided 47% of the demand, blackouts are between 3- 17 hours per day across Lebanon, the lowest being in Beirut and South and the highest in Bekaa Valley. To meet the demand firms and households rely on diesel- fired private generators, resulting in a double payment of electrical bill. Telecommunication sector in Lebanon is followed with high mobile price and low fixed network quality. Lebanon Broadband speed position is 160 out of 207. Moreover, despite the high price and low speed of connection in Lebanon, number of internet users in the country had increased by 651% from 2006 to 2016 according to Worldwide broadband speed league (2019).

#### **2.9.4 Higher Education Background**

Lebanon is known for its high level of educated people, adult literacy rate achieved 93.9% and youth literacy 99.3% (UNDP, 2016). Until the early nineties, Lebanon was named as the “University of the East” (Al- Jack, 2005). Starting from 1996, new colleges, institutions and departments within existing universities were newly licensed, thus pushing the number of students from 82,446 during 1995 to 195,474 at the end of the year 2016 according to statistics found in the national Centre for Educational Research and Development (CERD). Lebanon is made up 46 higher education institutions, there is a single public university (Lebanese University), 35 private universities, 7 university colleges and 3 universities related to religious studies. The Ministry of Education and Higher Education (MEHE), is responsible for the higher education in Lebanon. In 2002 Directorate General for Higher Education (DGHE) was established to supervise private higher education sector. During the period before civil war (1975-1990), Lebanon was the main destination for Arab students, according to Bachour (2015) foreign students accounted for 57% of the total university students during the academic year 1974-1975. However, such number decreased by 10% during the academic year 2003- 2004 (Bachour, 2005). Such decline is due to

the civil war, and from another side it is due to the decrease in the quality of education (Bachour, 2005). Table 4.2 page 73 shows the list of universities in Lebanon, the number of campuses, total enrolment, fees and whether entrepreneurship is taught as a major. Higher education plays a critical role in finding solutions for a country social and economic challenges (Ghannage, 2018). However, in Lebanon education is not filling the gap found between needs and competences (Azhari, 2014). According to Potter (2008). Lebanon is far behind European countries and USA in entrepreneurship education, in search for universities that has entrepreneurship as a major course, this study found that only 3 out of 35 universities in Lebanon provide such major.

### **2.9.5 Support of Entrepreneurship in Lebanon**

According to GEM (2018) majority of start-ups in the country falls in low productive sectors. In its attempt to support economic growth in general and entrepreneurship in specific, the central bank, Bank du Liban (BDL) provided incentives for banks, in the absence of any support provided from the government. In August 2013, BDL provided financial incentive, known as Circular 331, for an amount of \$400 million to Lebanese commercial banks to provide equity loan for new technology start-ups. BDL guaranteed 75% of the loan value. By 2016 the amount had raised to \$650 million. Based on IDAL (2019) report there exist 11 incubators and accelerators in Lebanon, which they are still newly established. Seven of the incubators/ accelerators are in the capital Beirut, the oldest is Berytech which was established in 2002 by University Saint Joseph. Table 2.2 shows a list of incubators and accelerators found in Lebanon.

**Table 2. 2: Incubators and Accelerators in Lebanon**

<b>Incubator/ Accelerator</b>	<b>Established (year)</b>	<b>Location</b>
BeryTech	2002	Two in Beirut and one in Mount Lebanon
BIAT	2006	Tripoli
South BIC	2010	Saida
NeoPreneur	2014	Byblos
UK Lebanon Tech Hub	2015	Beirut
Speed BDD	2015	Beirut
Flat 6 Labs	2016	Beirut
Smart ESA	2017	Beirut
Hult Prize	2017	Beirut
Booster06	2018	Tripoli
Startecheus	2019	Beirut

**Compiled from IDAL (2019)**

Furthermore, no intervention programmes or support that targets youth unemployment in general and university graduates in specific is found from the Lebanese government. A number of policies were formulated by the ministries but not adopted by the government and such as SME Strategy Roadmap for 2020, Strategic and Operational Plans and 2025 Vision of the Ministry of Industry, A Country Programming Framework for Agriculture 2012-2015 and 2016 – 2019, Lebanon Economic Vision by Mckinsey (Brihi et al., 2019).



## **CHAPTER THREE: RESEARCH HYPOTHESES**

### **3.1 Introduction**

After discussing the literature review found in the field of entrepreneurship and entrepreneurial intention, in addition to the historical and current situation facing Lebanon, this chapter presents the research hypotheses. The focus of this section is to formulate hypotheses that will help to test the relationships developed from the theory of planned behaviour, which is related to attitudes, social norms, perceived behavioural control, personal characteristics, students' perception of university, environment and governmental support.

The ability of the Theory of Planned Behaviour (TPB) to predict entrepreneurship intention has been proven by several researchers such as Linan and Chen (2009), Autio et al., (2001), Krueger et al., (2000). Ajzen (1991) explained that TPB proposes that the intention to perform a behaviour is strong when attitudes and social norms are favourable towards a specific behaviour and when perceived behavioural control is high. Investigating intention of students is critical to the understanding of their future career choices, entrepreneurial intention is considered the first step for starting a business (Bagozzi et al., 1989; Kautonen, Van Gelderen and Tornikoski, 2013). It is found that entrepreneurial intention is influenced by two main factors; namely contextual factors and personal background (Fayolle and Gailly, 2015; Luthje and Franke, 2003; Autio et al., 2001).

Literature showed that there are some contextual factors that also influence entrepreneurial intention or influence the theory of planned behaviour precursors (Lee and Wong 2004). However, such influence is not the same for every student as their perceptions, attitudes and behaviours differ (Turker and Selcuk, 2009).

### **3.2 Theory of Planned Behaviour**

Attitude is related to respected action evaluation; it represents the degree to which an individual carries a positive or negative personal assessment towards a behaviour (Ajzen 1991). An attitude towards entrepreneurship is related to the individual belief regarding the results of starting a venture, which could be favourable or unfavourable (Schlaegel and Koenig, 2014, Kautonen et al.,

2015). Favourable attitude towards self-employment will positively influence the attractiveness of being an entrepreneur. Studies showed a significant relationship between attitude towards entrepreneurship and entrepreneurial intention (Armitage and Conner, 2001; Kim and Hunter, 1993). Moreover, some studies confirmed that attitudes towards entrepreneurship is the most influential factor that affects intention towards entrepreneurial career (Kautonen et al., 2013; Linan et al., 2011; Kirby, 2004)

Therefore, it is significant to investigate the existing relationship between attitudes of Lebanese university students and the influence of these attitudes on the intention.

The second behaviour determinant is Perceived Behavioural Control (PBC) is related to an individual's belief regarding his/her ability to execute planned behaviour and the perception that the behaviour is within his/her own control (Ajzen 1991; Bandura 1986). PBC is also defined as how the individual perceive the performance of the behaviour as easy or difficult (Cardon and Kirk, 2015; Wilson et al., 2007; Ajzen 1991).

As explained by Ajzen (1991), individuals who have adequate opportunities and resources and at the same time face minimal obstacles and so tend to have higher perceived control over their behaviour. Previous studies confirmed a positive relationship between PBC and EI (Kautonen et al., 2015; Luthje and Franke 2003; Krueger et al., 2000).

Finally, social norms, which is related to the pressure that comes from people and cultures' opinion about perceiving or not perceiving the behaviour (Ajzen, 2001). Parents, friends, role models or mentors were empirically found to be the most social influencers (Schroder et al., 2011). This determinant is related to whether the referent groups will oppose or endure the behaviour (Veciana et al., 2005).

Regarding entrepreneurship, social norms is related to the opinion of significant people on the intention of an individual in becoming an entrepreneur (Krueger et al., 2000). A positive insight from individuals towards starting a new business will positively influence the attractiveness and desire towards entrepreneurship as a career choice (Maes et al., 2014; Schlaegel and Koenig, 2014; Pruett et al., 2009; Kolvereid and Isaken, 2006; Ajzen 1991).

However, other researchers found a weak role of SN in the TPB model in particular concerning entrepreneurial intention model such as Kautonen et al., (2013), Marques et al., (2012), Autio et al., (2011), Linan and Chen (2009), Linan (2005), Luthje and Franke (2003), Armitage and Conner (2001), Gailly (2004), Krueger et al., (2000); who found that social norms are not a significant predictor of entrepreneurial intention. Ajzen's theory of planned behaviour also argued that social norms affect personal attitudes and perceived behavioural control (Ajzen, 1991).

The following hypotheses were formulated:

**H1a: There is a significant positive influence of personal attitudes on students' entrepreneurial intentions.**

**H1b: There is a significant positive influence of perceived behavioural control on students' entrepreneurial intention.**

**H1c: There is a significant positive influence of social norms on students' entrepreneurial intention.**

**H1d: There is a significant positive influence of social norms on students perceived behavioural control.**

**H1e: There is a significant positive influence of social norms on students' personal attitude.**

### **3.3 Perceived Contextual Factors**

Contextual factors are related to an individual's external environment including cultural, economic, technological, social and political factors surrounding an individual (Amos et al., 2015).

Turker and Selcuk (2009) assured that contextual factors should be taken into consideration in entrepreneurial studies. Perception students concerning their current context plays an important role in understanding students entrepreneurial intention, for this reason, the current study is based on a process-based approach; where Theory of Planned Behaviour was modified to give a better figure of the factors influencing entrepreneurial intention of students.

The first factor in the model is perceived university support, literature review suggest that university environment and its support system affects student's entrepreneurial intention directly or indirectly through the motivational factors such as personal attitudes and perceived behavioral control (Dyer 2017; Shirokova et al, 2016; Kuttim et al., 2014; Bae et al., 2014; Fishbein and Ajzen, 2010; Souitaris, 2010; Turker and Selcuk, 2009; Wilson, 2007; Souitaris et al.2007; Zhao et al., 2005, Gorman and Hanlon, 1997).

In examining the influence of university environment on students' entrepreneurial intention Franke and Luthje (2004) found that students who negatively evaluated the activities and support offered by the university regarding the required knowledge to start a new venture were the ones that had a low level of entrepreneurial intention. Whereas, Setiawan (2012) showed that entrepreneurship education had a positive influence on improving students' entrepreneurial characteristics. Moreover, Kolvereid and Moen (1997) stressed that entrepreneurship education has a great impact on influencing graduates to act more entrepreneurially compared to those that have not taken a major in entrepreneurship. Entrepreneurial Education is one of the main factors encouraging the development of entrepreneurial attitudes and behaviour (Potter, 2008). According to Pittaway and Cope (2007) government and quasi- environmental policies play an important role in promoting and encouraging entrepreneurial education

Extensive study throughout the years were done to examine the influence entrepreneurship education has on students, and it has been argued that for it to be effective it needs to support students with high capability to be creative and accept changes as opportunities (Timmons and Spinelli, 2007), in addition business incubators are of high importance in the process of influence students towards entrepreneurial career (Markuerkiaga et al., 2016; Hughes et al., 2007). However, Gurel et al., (2010) found no influence of education on the intentions.

Individuals are surrounded with factors related to the economy, society, politics, demography, institutional infrastructure and culture characteristics that may affect their intentions (Yurtkoru et al., 2014; Turker and Selcuk, 2009; Kristiansen 2001). Such context is primary influenced by the economic and political system, which are controlled by public and private sectors. Such context might offer an adequate and motivated environment for individuals to consider entrepreneurship, or it might work as barriers to it (Ismail et al, 2009).

Legal and government support plays a critical role in influencing individuals (Stephen et al., 2005), as they can provide training centres, financial support and different incentives to encourage entrepreneurs (Bridge et al., 2009). Government is the main body for setting up rules and procedures that enhance implementation of entrepreneurship (Fini et al., 2011). Different researchers explained that financial capital is directly related with entrepreneurship (Kim et al., 2013) and in most cases it is a barrier for start-ups (Steier and Greenwood, 2000; Meier and Pilgrim, 1994).

Positive correlation was found between initiatives and supports from both government and non-government organizations and students' entrepreneurial intention (Denanyoh et al., 2015).

Individuals do not take the decision to open a new business in isolation from the environment that they live within, however the intention of students towards an entrepreneurial career is directly influenced by perceived barriers and supportive factors (Luthje and Franke, 2003). It is reasonable to concentrate on the entrepreneurial intention as part of a social, political and economic context. Governments worldwide seems to be trying to promote entrepreneurship but failing to provide a supportive environment for entrepreneurs (Davis 2002). Thus, it is hypothesized that:

**H2a: There is a significant positive influence of perceived university support on personal attitudes.**

**H2b: There is a significant positive influence of perceived university support on perceived behavioural control.**

**H2c: There is a significant positive influence of perceived university support on students' entrepreneurial intention.**

**H3a: There is a significant positive influence of perceived governmental support on personal attitudes.**

**H3b: There is a significant positive influence of perceived governmental support on perceived behavioural control.**

**H3c: There is a significant positive influence of perceived governmental support on students' entrepreneurial intention.**

**H4a: There is a significant positive influence of perceived environmental support on personal attitudes.**

**H4b: There is a significant positive influence of perceived environmental support on perceived behavioural control.**

**H4c: There is a significant positive influence of perceived environmental support on students' entrepreneurial intention.**

### **3.4 Personal Characteristics**

Personality characteristics cannot be isolated from the mentioned contextual factors. Several researches found the importance of personal traits and psychological variables in the development of entrepreneurial intentions (Paul and Shrivatava 2016; Linan et al., 2011; Zhao et al., 2010; Zampetakis, 2008; Shane et al., 2003; Baum et al., 2001; Gartner, 1990). The difference in personal characteristics that exist between individuals affect their entrepreneurial intention (Zhao and Seibert, 2006), that is why the factors that affects individuals' characteristics were explored by various researchers (Karabulut, 2016; Leutner et al., 2014; Mustafa et al., 2016). Although trait based approaches are the most widely used approach in studying entrepreneurship, it had many limitations and was criticized by several researches for its low explanatory and prediction value (Ajzen 1991; Robinson et al., 1991; Reynolds 1997; Krueger et al., 2000; Santos and Linan 2007; Hisrich et al., 2007). Baum et., al (2001) determined that personality characteristics are important predictors of entrepreneurship but not when taken in isolation.

There is an ongoing debate regarding the effect and the manner that personal characteristics influence entrepreneurial intention. Some studies showed a positive and direct effect of entrepreneurship traits on entrepreneurial intention (Mould 2013; Zhao et al., 2010). Others found an indirect effect of personal characteristics on entrepreneurial intention, where such characteristics play an important role as mediating factors (Palamida, 2016; Peng et al., 2012; Chen et al., 2012).

Chell (2008) stated that the “big three” personality of new venture creators are need for achievement, locus of control and propensity to take risk. This study took into consideration the big three personalities and it added “innovativeness” as a personality trait due to its importance in entrepreneurship.

#### **3.4.1 Need for achievement**

Need for achievement theory was one of the most important theories presented by McClelland (1961). Need for achievement is related to individual’s motivation for doing something better and faster than expected by others or by the one’s earlier accomplishments (Hansemark, 2003). According to McClelland (1961) such individuals are ambitious, hardworking, competitive and place high value on achievements.

Students with high need for achievement have higher self-confidence (McClelland, 1961), and thus they are more willing to accomplish complicated and difficult circumstances (Slocum et al., 2002).

As individuals intellectually process the probability of being presented in an occasion, they assess ways to manage their presence and modify their attitudes; accordingly, thus, developing favourable or unfavourable evaluation of the behavior (Fini et al., 2012).

Motivational forces positively influence attitudes (Eagly and Chaiken 1993; Robison et al., 1991; Fini et al., 2012).

Several studies showed that need for achievement has a strong direct relation with entrepreneurial intention (Yusof et al., 2007).

**H5a: There is a significant positive influence of need for achievement on personal attitudes.**

**H5b: There is a significant positive influence of need for achievement on perceived behavioural control.**

**H5c: There is a significant positive influence of need for achievement on students’ entrepreneurial intention.**

### **3.4.2 Locus of Control**

Rotter (1996) was the first researcher to link locus of control to entrepreneurship, locus of control refers to individual's belief regarding of what control his/her events (Strauser et al., 2002). Individuals with internal locus of control do not believe in luck, they believe that they have control over everything that happens in their life and thus all the outcomes in their lives are results of their own actions, in contrast, individuals with external locus of control heavily believe in luck, chance and fate in most of the events in their lives (Shook et al., 2003; Hansemark, 1998).

According to most scholars, entrepreneurs are found to have internal locus of control (Caliendo et al., 2014; Schjoedt and Shaver, 2012; Beugelsdijk and Noorderhaven, 2005; Lee and Tsang 2001; Henrron and Robinson 1993; Bonnett and Furnham 1991).

Some scholars found that individuals with high internal locus of control have high entrepreneurial intentions (Roy et al., 2017; Mazzarol et al., 1999). Others such as Rosique- Blasco et al., (2018) and Peng et al., (2012) found to have influence of theory of planned behaviour constructs.

**H6a: There is a significant and positive influence of locus of control on personal attitudes.**

**H6b: There is a significant and positive influence of locus of control on perceived behavioural control.**

**H6c: There is a significant and positive influence of locus of control on entrepreneurial intentions.**

### **3.4.3 Propensity to Take Risk**

Propensity to take risk is related to individual's willingness to pursue a course of action that contains risk and uncertainty regarding results (Jong et al., 2015; Kuip and Verheul, 2003; Jackson, 1994), such trait usually differentiates entrepreneurs from managers (Stewart and Roth 2004).

It is the leaning towards taking risk in deciding, such as entrepreneurship act (Al Mamun et al., 2016). Studies show that propensity to take risk is an antecedent of theory of planned behaviour



constructs (Rosique- Blasco et al., 2018; Zhao et al., 2010; Tang and Tang, 2007; Luthje and Franke, 2003).

**H7<sub>a</sub>:** There is a significant positive influence of risk-taking propensity on personal attitudes.

**H7<sub>b</sub>:** There is a significant positive influence of risk-taking propensity on perceived behavioural control.

**H7<sub>c</sub>:** There is a significant positive influence of risk-taking propensity on entrepreneurial intention.

#### **3.4.4 Innovativeness**

Innovation is defined as the act of realizing new and creative ideas over a period (Ven, 1986 cited in Al Mamun et al. 2016), it is the continuous search for new markets, products, opportunities and ideas (Utsich and Rauch, 2000). According to Santandreu- Mascarell et al., (2013) entrepreneurs ‘contribution to the economy is through innovation which is reflected by having new processes, products, business development and market exploitations. Van Deven (1992) found that innovativeness is the main element of entrepreneurship. Some studies found that innovativeness has a strong impact on entrepreneurial intention (Hamidi et al., 2008; Armstrong and Hird, 2009), while others found that innovativeness had a strong impact on attitudes and perceived behavioural control (Robinson et al., 1991).

**H8<sub>a</sub>:** There is a significant positive influence of innovativeness on personal attitudes.

**H8<sub>b</sub>:** There is a significant positive influence of innovativeness on perceived behavioural control.

**H8<sub>c</sub>:** There is a significant positive influence of innovativeness on entrepreneurial intention.

### **3.5 Theoretical Framework**

Theory of Planned behaviour provides a suitable framework for exploring the effect different variables may have on individual's entrepreneurial process. According to Luthje and Franke (2003) contextual factors can positively or negatively affect an individuals' entrepreneurial intention. Moreover, although there is some criticism concerning the weak relationship between personality traits and entrepreneurial intention, still a number of researchers argue that it cannot be omitted and still needs to be taken into consideration while studying entrepreneurial intention. As a result of previous research elaborated in this chapter and based on the specific context of Lebanon explained in Chapter Two a model adopted from Ajzen Theory of Planned Behaviour was developed. Figure 3.1 shows the proposed framework guiding this study and summarizes the hypotheses.

In total 26 hypotheses are drawn from 11 constructs, the dependent variable is entrepreneurial intention and the independent variables employed in this framework are personal attitudes, social norms, perceived behavioural control, need for achievement, locus of control, risk taking, innovativeness, perceived university support, perceived governmental support and perceived environmental support. Based on that personality traits as well as the contextual factors can exert a direct effect on entrepreneurial intention or indirect via personal attitudes and perceived behavioural control.

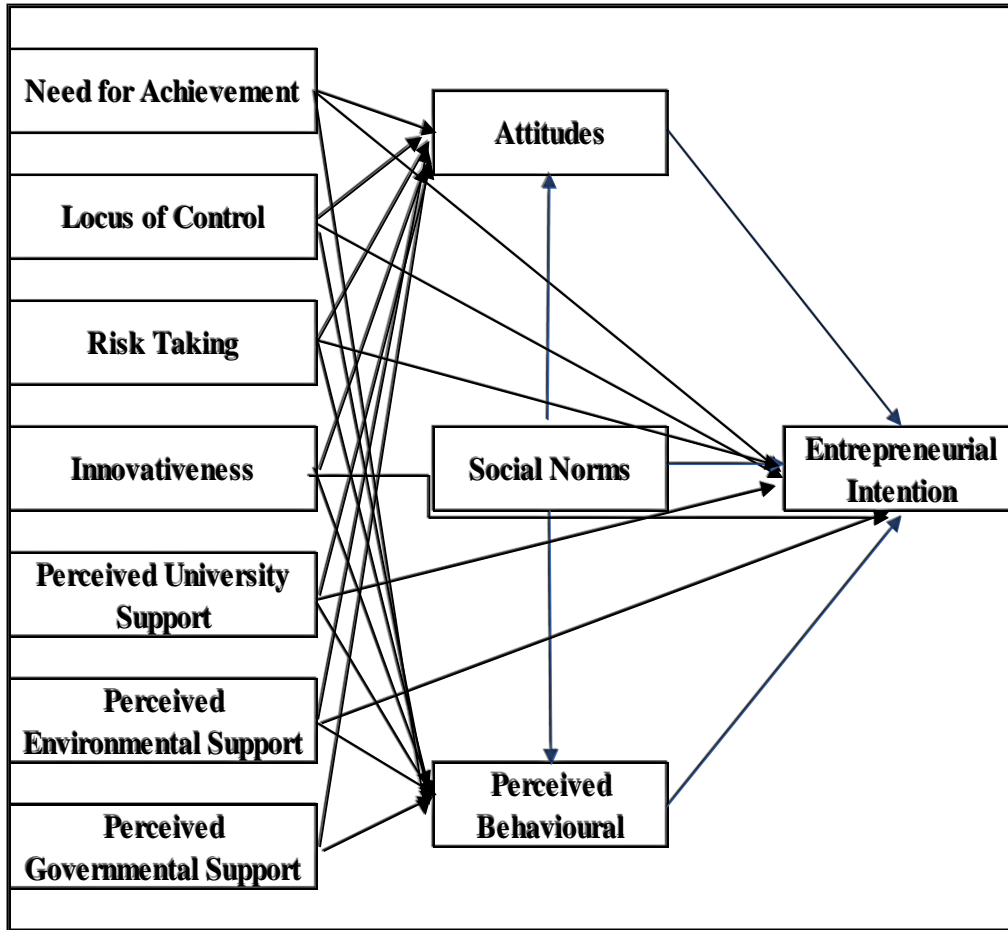


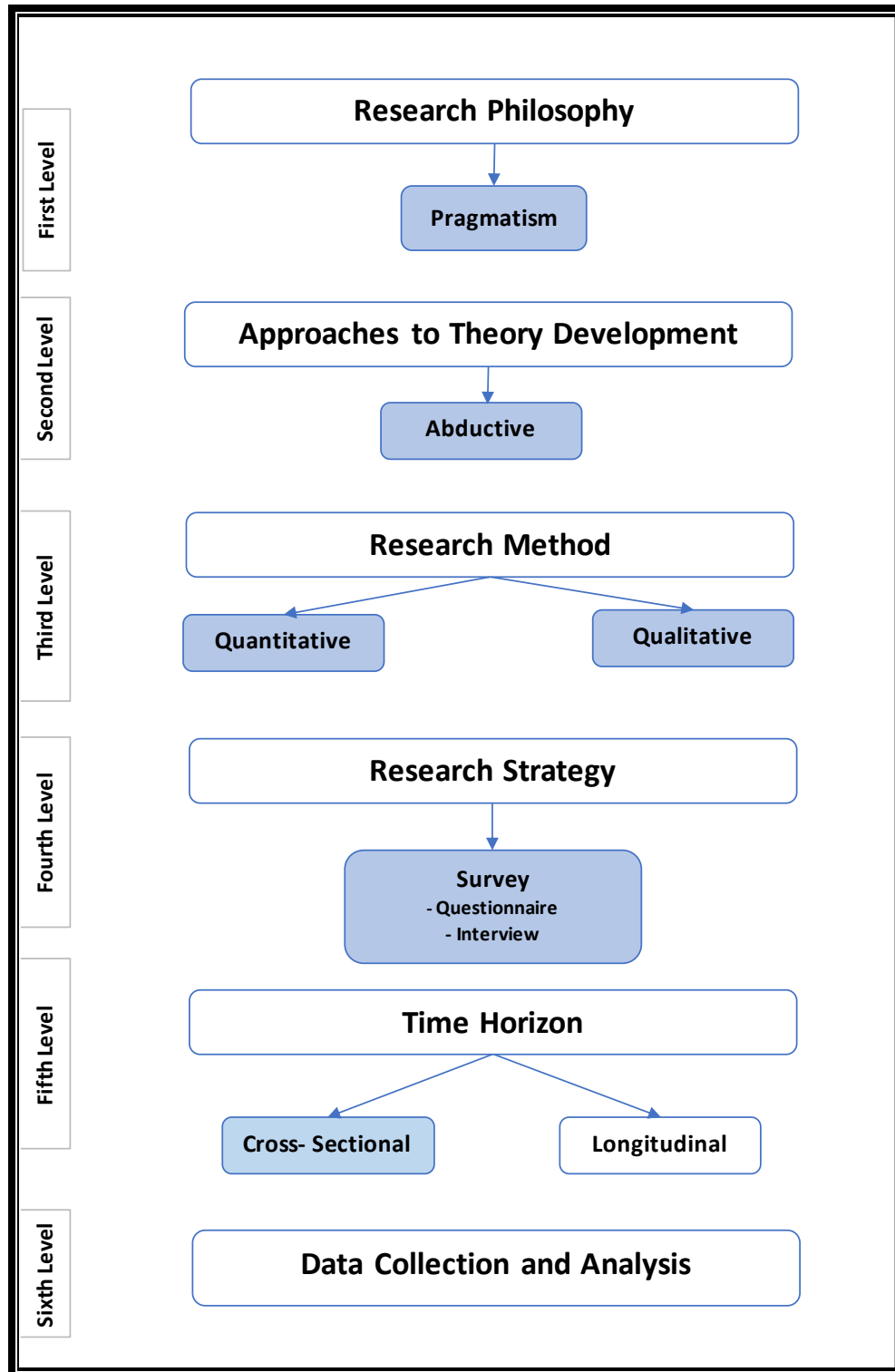
Figure 3. 1: Hypothesized model of students' entrepreneurial intention.

## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 Introduction**

Lebanon is facing problems regarding low economic growth and high unemployment rate between its youth, especially among its university graduates. In order to promote graduate's entrepreneurship, there is a need to explore determinants of entrepreneurial intention. This research aims to investigate the factors that influence university students towards having an entrepreneurial career in the context of Lebanon, based on the literature review discussion (Chapter Two) and hypothesis development (Chapter Three). The focus of the study is on intention rather than actual behaviour, individual and primary data will be collected directly from students and related individuals, as such information is not available from secondary sources, at least in the case of Lebanon.

The preceding chapter is concerned with the overall methodological approach of this study. Figure 4.1 reflects the overall research design of this study which follows the sequence of the research design as suggested by Saunders et al., (2019). Figure 4.1 shows the decisions regarding research philosophy, research approach, research method, research strategy, time horizon, in addition to collection and analyses of data. This chapter is divided into 12 main sections: introduction, approach, method and strategy, time horizon, population and sampling, questionnaire design, interview design.



**Figure 4. 1: Research Design**

## 4.2 The Research Philosophy and Paradigm

The first step towards designing a research is through choosing the research philosophical attitude (Bryman, 2008), which is the assumptions and beliefs about the way the world operates (Burns and Burns, 2008). Philosophy in the context of research, is defined with the help of research paradigm in which according to Cohen et al., (2000) is the broad framework that comprises perceptions, beliefs and understanding of several theories and practices that are used to conduct a research.

A paradigm consists of assumptions related to the ontological position, which gives answers about the reality of social being, it is concerned with whether the nature of knowledge exists objectively or subjectively (Guba, 1990). As ontology is the philosophy of reality, the epistemological assumption directs how researcher comes to know the reality (Krauss, 2005), it is the source of knowledge; it includes what is acceptable, valid and legitimate knowledge (Gall et al., 1996), it is the how we come to know (Trochim, 2000). The practices applied to obtain the knowledge is the methodological assumptions, which leads to the process of the research (Saunders et al., 2003). The literature is dominated by two main epistemologies, positivism and interpretivism (Dieronitou, 2014).

Positivism originated in the 19<sup>th</sup> century, came from the positive philosophy by the French philosopher Auguste Comte (Compte, 1975). Within positivism the researcher's personal believe is independent from that of the study, researcher's judgments are based on facts that can be generalized to the population under study (Remeniyi and William, 1998). The study of human behaviour can be conducted in the same way as natural sciences (Collis and Hussey, 2003), and so the research can be replicated since highly structured methodology is to be applied (Saunders, et al., 2003). Positivism is only concerned with empirical data (Juma'h, 2006; Collis and Hussey, 2003), thus quantifiable observation that brings statistical analysis and leads to law- like generalizations (Saunders et al 2003; Gartrell, 2002), positivists take a relatively objective stance.

Through positivism the researcher tries to explain what is happening in the social world by investigating casual relationships (Burrell and Morgan, 1979), which requires using theories to develop hypotheses that can be tested (McAuley et al., 2007). By contrast, the philosophy of interpretivism believes that social sciences (people and institutions) are different than natural

sciences (Easterby- Smith et al., 1991), they encourage scientists investigating social phenomena to hold on to the subjective meaning of social action (Bryman and Bell, 2011). The researcher understands the reality from his own personal experience and attitudes. Unlike positivists they believe the world is not simple and there is a need for interaction with what is being studied, in order to decrease the gap between the researcher and the research (Collis and Hussey, 2003). The main objective for interpretivism is to have a deep understanding of the phenomena under study, which requires qualitative methods, rather than fixed measurements (Creswell and Plano Clark, 2007). Interpretivism paradigm avoids pre- development of conceptual frameworks and hypotheses, as they believe that such issues create bias, where researcher will only focus on specific areas (Ridenour and Newman, 2008). They believe that the world is always changing, and what is applicable today may not be applicable in the future.

This research will take an intermediate position between positivism and interpretivism, and a pragmatism paradigm will be adopted. By relying on pragmatism, the researcher is free to use any method for pursuing the research questions and aims (Feilzer, 2010; Robson, 1993). The primary focus in pragmatism is on the importance of the research question rather than the applied methods, and that the use of mixed methods is more appropriate to investigate any study (Creswell and Clark, 2007). The term “pragmatism” comes from the Greek word “pragma”, which means to act (James, 2000). This philosophical thought started during the 19<sup>th</sup> century by Charles Sanders Peirce (1878) in his article “how to make our ideas clear” (Shield, 1998). Early pragmatists such as William James, John Dewey, George Mead and Arthur Bentley refused the assumptions that there is a single truth which is accessed solely by a single scientific model (Gale 2005). Instead, they claim that reality is always evolving, that is why research should not mainly focus on finding the truth or reality but to simplify human problem solving (Powell, 2001; Tashakkori and Teddlie, 2003). As Feilzer (2010, p.8) explained “pragmatism accepts, that there exist singular and multiple realities which are open to empirical enquiry and orients itself toward solving practical problems in the real world”. Therefore, by being pragmatic the researcher can be flexible in choosing the research design and approach that will help in achieving the aims and objectives of the study.

### 4.3 Research Approach

Research approach is the process by which social science theories are created, assessed and justified (Saunders et al., 2009). This research aims to understand university students' entrepreneurial intention, to reach this aim a flexible approach is used, instead of relying on general premises to reach specific results; deductive approach, or on specific premises to reach general results; inductive (Harwell, 2011).

The deductive approach suggests that a study starts with an existing theoretical model, where hypotheses are derived, then the researcher observes the phenomenon (using quantitative tools) and based on results the theory (model) is confirmed, rejected or modified. Putting all this together, deductive approach is said to move from general to a specific conclusion. One of deductive approach strength is that researchers can know if their conclusion is valid or not, however, it may not be able to deeply reflect social phenomena. An alternative approach is the inductive, it starts by collecting data from an observation (data) rather than starting from an existing theory. It is a bottom up approach where tentative hypotheses are set based on the observation and a new theory maybe developed (Saunders et al., 2009 and Burns and Burns, 2008). Deductive and inductive are not applied as mutually exclusive, but they can complement each other (Blundel, 2007; Patokorpi, 2006; Saunders et al., 2009).

Instead of relying on general rules to reach a specific conclusion (deductive reasoning) or on specific observation to seek general conclusions (inductive reasoning), there exist a more flexible approach named "abductive" (Harwell, 2011). In such approach the researcher is free to use whatever sequence required to get to the conclusion, researcher may move back and forth between deductive and inductive (Morgan, 2007), it is mostly used within pragmatism phenomenology.

By using both approach, researcher can start the investigation within an inductive approach where results are further evaluated to confirm the findings by the use of deductive approach, or it can take the other side where investigation starts based on deductive approach and then inductive approach is used to extract some unexpected and hard to explain result (Creswell, 2014). This study relies on abductive approach, due to its exploration nature, firstly the study will use deductive approach to test a model based on extant literature review and since Lebanon is the context under



research, an in depth understanding of the Lebanese issue will be inductively taken into consideration.

#### **4.4 Research Method and Strategy**

Research design is about turning the research questions or problem into research project, the way the researcher investigates rely on both the paradigm and approach of study (Robson, 2002). Through research design, the researcher specifies the relationship between the variables; and thus, select the sources and types of information, which may be quantitative and/ or qualitative (Blumberg et al., 2005).

##### **4.4.1 Mixed Method**

For a better understanding of the research design, it is critical to identify the type of the research; which may be an exploratory research, descriptive research, explanatory research (Robson, 2002; Christensen et al., 2011). The degree of uncertainty about the research problem, identify the type of research (Zikmund, 2010). If the researcher is studying a phenomenon where key variables are not known the type of research is said to be exploratory. The research is descriptive if the researcher describes known variables. Whereas, the research is explanatory if key variables and their relationship is previously defined (Ghauri et al., 1995). Considering the purpose of this study, factors affecting entrepreneurial intention, by testing the applicability of theoretical models, this research type is explanatory, where the researcher tries to determine the link between entrepreneurial intention and other variables.

Since pragmatism philosophy is adopted the researcher tends to collect data by what works while addressing the research problem, and as an abductive approach is applied multiple or singular reality may exist (Creswell and Plano Clark, 2007). Methodologically both qualitative and quantitative data is to be collected and thus mixed data collection methods are used. This approach not only enriches the study but completes it. As described by Kval et al., (2014) a mixed method is a “research in which investigators collect and analyse data using quantitative and qualitative approached in a single study” (pg.105).

Mixed data collection method gained a great popularity within the social science field (Creswell and Plano Clark, 2007), its main concept relies on the believe that a combination of quantitative

and qualitative approaches provides a deeper understanding of the phenomena under study (Elliott, 2005). Mixed data collection method approach combines quantitative and qualitative methods, as opposed by many scholars the two methods do not stand in isolation (Onwuegbuzie and Leech, 2005; Tashakkori and Teddlie, 1998) but can be complimentary to each other (Blundel, 2007; Patokorpi, 2006; Saunders et al., 2009). The use of mixed data collection methods allows the understanding of the individual's subjective part and the objective part of the issue under study (Johnson and Christenson, 2014). Quantitative refers to any study that generates or uses numerical data, it discovers facts about social phenomena and accept that the reality is fixed and measurable, thus relying on the philosophy of positivism research approach (Minichiello, 1990). In contrast, qualitative refers to data that generates or uses non- numerical data. It is concerned with human behaviour, where the researcher assumes that reality is dynamic, since subjectivity is the focus of the study qualitative is suited within interpretivism (Minichiello, 1990; Newman, 2014). In the context of this research the quantitative method is represented by the use of questionnaire and statistical analysis, whereas the qualitative method is represented by interview conducted with related individuals and a template analysis is applied.

#### **4.4.2 Triangulation**

Every method has its advantage and disadvantage, to overcome the disadvantages some researchers suggest that it is favourable to combine different methods (Bryman and Bell, 2007; Jankowicz, 2003; Robson 2002; Sekaran, 1992, Brewer and Hunter, 1989). This is known as triangulation approach or multi- method approach. Shook et al., (2003) encouraged researchers investigating on entrepreneurial intention to engage in triangulation research. Moreover, Molina-Azorin et al., (2014, p.425) mentioned that “only a few studies in entrepreneurship employ mixed methods strategies. Mixed methods may help to improve entrepreneurship research addressing challenges emphasized in earlier studies...to advance our understanding of the entrepreneurial phenomena.”

According to Denzin (1997) there are four main forms of triangulation.

- Data triangulation: is applied when data is collected from different stakeholders at different time and situations.

- Investigator triangulation: more than one researcher gathers and interpret data to avoid the subjective influence of individuals.
- Theoretical triangulation: more than a single theoretical position to interpret data.
- Methodological triangulation: using different methods to collect data.

This research applies the methodological triangulation, where questionnaire and interviews are conducted. According to Denzin (1978) there are two ways for implementing the methodological type of triangulation, which are known as “within- methods” and “between- methods” triangulation.

Within methods triangulation is a methodological triangulation where data is collected and interpreted using different techniques but within a single method, whereas, between methods triangulation is related to the use of different methods in the research (Denzin 1978).

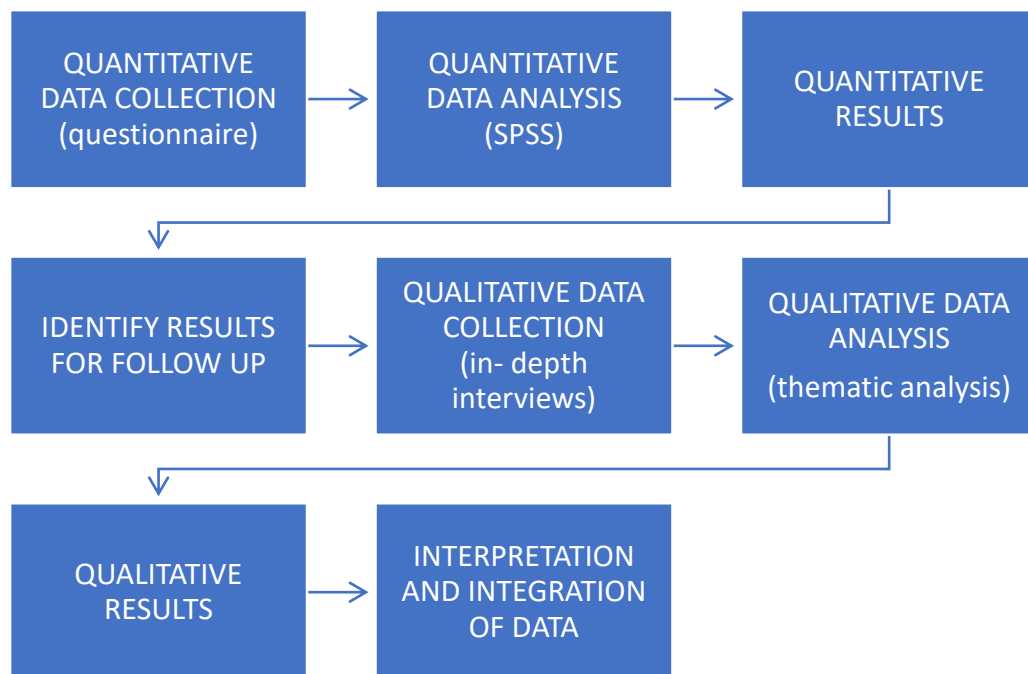
As this research implements “between methods” triangulation, it is important to differentiate between its three basic strategies as proposed by Creswell (2009, 2014).

- Concurrent triangulation strategy: use quantitative and qualitative data in parallel and then compares the result to determine if they are similar or different to confirmation, disconfirmation, cross validation or corroboration (Creswell 2014). The main purpose is to compare integrated information while interpreting the overall results of the study.
- Explanatory sequential triangulation strategy: first phase is done by quantitative collection and analysis of data which enlightens the qualitative data collection and analysis, phase two. Then main purpose is to have a deep explanation of quantitative results.
- Exploratory sequential triangulation strategy works as opposite to explanatory, phase one starts with qualitative methods and then it is followed by the quantitative data. The focus is to explore a phenomenon and then quantitatively test the theory resulted from phase one, so that it can be generalized.

The research strategy chosen for this study is explanatory sequential triangulation, Figure 4.2 shows the sequence followed in the collection of data, it shows that the initial step is based on a questionnaire, which is the theoretical drive of the investigation (Morse and Niehaus, 2009). The collected data is then analysed by the use of SPSS and AMOS (chapter five), results obtained from

quantitative data will lead to the collection of qualitative data through an in-depth semi structured interview, which will be analysed by thematic analysis (chapter five). Finally, quantitative and qualitative data results are interpreted and integrated (chapter six).

Since literature review is available in the field of entrepreneurial intention a conceptual model and hypotheses could be developed, thus a quantitative study that employs structured and objective methods is considered appropriate. The questionnaire will be distributed to students to reveal the main factors affecting them, this quantitative data is the grounding for the study (Gartner, 2010). The use of this strategy permitted the researcher to explore the phenomenon within the university situation, as the phenomenon is subjective in nature, using a single method will limit the richness of the study. Molina- Azorin et al., (2014, p. 425) states that “only few studies in entrepreneurship employ mixed methods strategies. Mixed methods may help to improve entrepreneurship research addressing challenges of the entrepreneurial phenomena”.



**Figure 4. 2: A mixed method sequential explanatory study**

#### **4.5 Time Horizon**

When research data is collected at a specific time it is said to be a cross-sectional research (Saunders et al., 2003). In a cross-sectional study only variables can be examined, due to the impossibility of observing data through time, it is concerned with current status (Bryman, 2008). Whereas, if the researcher is concerned with change and progress (Rajulton, 2001), investigation needs to take place at least two times over time using the same sample, in such case the study is said to be longitudinal, any change that happens within the sample under investigation can be detected by the researcher (Saunders et al., 2003). Cross-sectional design is chosen in both level of the study. The first level constitutes of the distribution of questionnaire to university students to understand the factors that affects student's intention towards entrepreneurial career. The second level, which is the interviews, is also based on cross-sectional design, where it was conducted after the completion of the results of the questionnaire.

#### **4.6 Sampling Strategy**

The selection of an appropriate sample for a research is significantly related to the identification of the population. According to Bryman and Bell (2007, p.182) a population is defined as “the universe of units from which the sample is to be selected”. This study population is Lebanese university students. There are several reasons for taking students as a unit of analysis in studying entrepreneurship. Students often make their decision about how they want their career to be immediately after or even before their graduation, and thus universities can influence such decision (Trice, 1999). Turker and Selcuk (2009) explain that if a university provides adequate knowledge and inspiration for entrepreneurship the possibility of choosing an entrepreneurial career might increase among young people. Research also suggests that university students have become and will remain a main force in entrepreneurship (Fritsch and Mueller, 2004). The European Commission suggested to all European Union members to add entrepreneurship education into the national curriculum from primary school to university, countries such as Lithuania, Denmark, Estonia, Sweden, the Netherlands and others, has launched specific strategies to encourage entrepreneurship education (European Commission, 2012). In addition, the World Bank (2013) highlighted entrepreneurial education as one of the vital factors to increase employment rate. Moreover, some researches showed that a higher percentage of individuals who open their own

business have a higher level of education compared to the ones who decide to be employees (Rae et al., 2012; Parker, 2004). In studying entrepreneurship intention most researches survey undergraduates, with greater focus on business and engineering schools (Shinnar et al., 2012; Manolova, 2011; Franke and Luthje, 2004; Schlaegel and Koenig, 2014). According to Pratheeba (2014) business students often direct their career choice towards business related areas as they enrol in several business programs during their university studies.

Regarding Lebanon, the number of students in higher education institutions reached 210,720, where 37.66% are in the Lebanese public university and 62.34% in private universities during the academic year 2017-2018 according to the Center for Educational Research and Development (CERD, 2018). The population of this study is specifically business school students, according to Ahmad Jammal, General Director of Higher Education at the Ministry of Education and Higher Education (MoEHE) who declared that 33% of bachelor students are enrolled in Business and Law School degree in Lebanon (Ghanem 2018).

#### **4.6.1 Sample**

The collection of data is one of the most important parts of a research (Sekaran, 2000), according to Bryman and Bell (2007, p.182), “the segment of population that is selected for investigation is defined as the sample”. It is impossible to acquire information from the whole population, that is why the selected sample must represent the population under study, so that results can be generalized (Hussey and Hussey, 1997; Bryman and Bell, 2007). Four main factors affect the selection of the sampling strategy according to Breakwell et al., (1995); the nature of population, research complexity, type of measurement used and the available resources. Sample can be collected as probability or non- probability, Table 4.1 shows the main difference between the two techniques and its different methods, along with its definition and limitations.

**Table 4. 1: Sampling Methods**

	<b>Definition</b>	<b>Limitation</b>
<b>Probability (random sample):</b>	Every unit in the population has an equal chance of being selected to the sample of the study, a sampling frame is required.	Costly and time consuming.
Simple	Population units is listed and randomly selected manually or through the help of software.	Costly- high standard errors of estimators- requires complete frame.
Systematic	Sampling is done by choosing a fixed interval between population units.	Risk of data manipulation in case the method applied meets with periodicity of trait.
Stratified	Population is divided into groups of similar units (strata), and random sampling is done within each stratum.	When researchers are not able to clearly classify the population units, the applicability of this method is disadvantageous.
Cluster	Population is randomly divided into mutually exclusive groups (cluster) and random sampling is done within each cluster.	Less accurate compared to the other types of random sampling.
Multistage	Population is firstly divided into groups and then it is randomly sampled and then the random sampled units are also divided into groups and then sample again, thus having the population divided within stages.	Less accurate compared to the other types of random sampling.
<b>Non- probability (non-random):</b>	Units in the population does not have the same chance of being selected.	Lower level of generalizability

Quota	Type of stratified, but selection of sample within strata is non- random.	May be subject to research bias.
Judgmental/Purposive	Choose sample based on researcher own judgement.	May be subject to research bias and difficulty to defend the representativeness of sample.
Snowball	Researcher contact some cases which in their turn identify other cases, and the new cases identify other cases and so on.	Sampling bias and lack of cooperation.
Convenience	Choose sample that is easy to attain.	Sampling bias.

**Source: Paraphrased from Saunders et al., (2009)**

Probability sampling could not be applied in this study, since the researcher was unable to obtain a sampling frame such as a list of students who are suitable for being part of the study. Consequently, the researcher applied nonprobability sampling. To be able to collect data from different geographical areas in Lebanon; and due to the inability of the researcher to get permission to enter different universities that covers all the areas in the country, the study will be based on a single university “Lebanese International University” (LIU). Purposive sampling technique was employed, it is a non- probability technique, which helps on focusing on specific characteristics of a population; although it may decrease the chance of generalization of results, but it provides a strong basis for future researches. Students enrolled in the selected university can be considered as a strong representative for the whole population, as the Lebanese International University is the largest university in Lebanon and has the highest number of enrolments (Table 4.2). Moreover, LIU offers education to students of the lower socio- economic status, which is the general case of most universities in the country as shown in Table 4.2. This comes along the low average annual salaries in Lebanon compared to the regional averages, according to the World Bank 70% of the Lebanese population generates an annual income of less than \$10,000 (Idal, 2019).

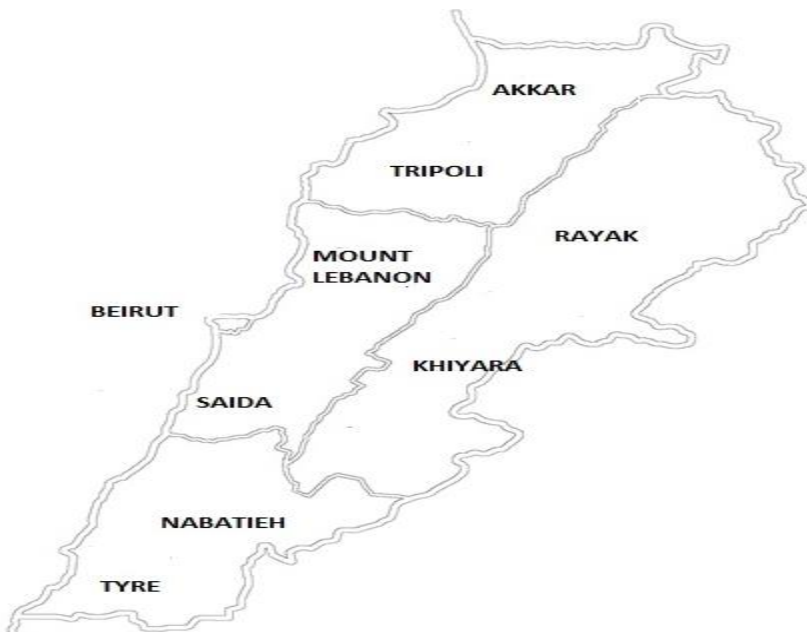


**Table 4. 2: List of Private Universities in Lebanon that teaches Business Administration**

University Name	Established year	No. of Campuses in Lebanon	Total enrollments	BA (Business Administration) enrollment	Business Total Fees (USD)	Entrepreneurship as a major
American University of Beirut	1961	1	8,733	1,525	\$ 77,940	yes
Lebanese American University	1961	2	8,528	2,401	\$ 73,876	yes
Notre Dame University	1987	1	6,255	1,709	\$ 47,564	no
University of Balamand	1988	1	4,595	378	\$ 43,522	no
Holy Spirit of Kaslik University	1961	1	7,812	1,365	\$ 34,155	yes
Haigazian University	1961	1	695	299	\$ 33,276	no
University of Saint Joseph	1961	4	9,779	2,024	\$ 30,240	no
American University of Technology	2000	3	1,155	585	\$ 29,205	no
American University of Science and Technology	2000	3	4,053	1,186	\$ 23,100	no
Hariri Canadian University	1999	1	761	168	\$ 21,780	no
Lebanese German University	1999	2	507	98	\$ 21,600	no
Middle East University	1961	1	179	42	\$ 21,340	no
Beirut Arab University	1961	4	9,707	1,455	\$ 20,900	yes
Antonine University	1996	4	3,562	998	\$ 19,584	no
Azn University	2015	1	294	122	\$ 19,200	no
University of Sagesse	1961	1	3,551	2,116	\$ 18,228	no
Phoenicia University	2015	1	903	209	\$ 17,745	yes
Universite Sainte Famille	2000	1	572	54	\$ 17,556	no
City University	1990	1	699	80	\$ 16,830	no
<b>Lebanese International University</b>	<b>2001</b>	<b>9</b>	<b>27,501</b>	<b>7,180</b>	<b>\$ 16,335</b>	<b>no</b>
Arts, Sciences & Technology University in Lebanon	2000	1	5,742	3,037	\$ 16,170	no
American University of Culture and Education	2000	5	2,732	1,368	\$ 16,000	
Modern University for Business and Science	2000	3	2,013	840	\$ 15,980	no
Lebanese Canadian University	2007	1	732	329	\$ 15,750	no
Al Maaref University	2015	1	527	163	\$ 14,850	no
Global University	1992	1	510	26	\$ 12,870	no
University of Sciences and Arts in Lebanon	2015	1	500	97	\$ 12,125	no
Islamic University of Lebanon	1996	2	5,229	1,470	\$ 10,260	no
Jinan University	1999	1	1,567	156	\$ 9,900	no
Arab Open University	2000	4	2,670	1,519	\$ 8,316	no
Al- Kafaat University	1999	1	1,013	450	\$ 7,990	no
Universite Libano- Francaise de Technologie et des Sciences Appliques	1996	3	1,370	459	NA	no
University of Tripoli	1982	1	318	81	NA	no

Source: Enrolment data was collected from CRDP in 2018, and the remaining information from universities websites.

As Figure 4.3 shows LIU covers nine different geographical areas, spread all over the country, thus covering the capital (Beirut) and the main rural areas (Bekaa, Rayak, Tripoli, Akkar, Saida, Tyre, Nabatieh and Mount Lebanon). This sampling provides the researcher with the opportunity to gather data from different areas and at the same time from homogeneous groups that are under the same curricula of study. Moreover, taking LIU as the sample of university students will also provide the opportunity to explore an actual situation within its realistic settings.



**Figure 4. 3: Lebanese International University Campuses**

Source: [www.liu.edu.lb](http://www.liu.edu.lb)

#### 4.6.2 Sampling Selection Criteria

In this study, data is to be collected in two steps; first a questionnaire will be distributed to students, followed by in-depth interviews.

##### 4.6.2.1 Questionnaire Sampling

Before collecting data from the questionnaire, the researcher received permission from the Dean of the School of Business in the Lebanese International University. The questionnaire was distributed across the School of Business students over the nine campuses. The target sample was first year students, known as juniors, and last year students; known as senior students, of all the seven business majors (Table 4.3). This sampling method allowed the researcher to collect data from students at different stages of their schooling.

**Table 4. 3: Disciplines within the School of Business majors in LIU**

Major title
Accounting Information System
Economics
Banking and Finance
Hospitality Management
Business Management
Marketing
Management Information System
International Business Management

Source: [www.liu.edu.lb](http://www.liu.edu.lb)

As the researcher works as a full-time instructor in the university, access to the whole number of business students over the 9 campuses was possible. The initial sample was 3,154 students. To attain a high response rate, the researcher first tried to distribute the questionnaire as hard copies during class time with the help and cooperation of faculty members in the selected courses. However, little acceptance and willing to help was shown from faculties, and that was mainly due to their unwilling to be losing class time as they were facing time pressure, and thus the opportunity cost of filling out the questionnaire during their lecture was high for them. Moreover, the researcher found it difficult to distribute hard copies of the questionnaire for two main reasons. First the process was found to be costly, as the researcher will need to go by herself to the nine different campuses which are geographically spread across the country. Second the researcher did not get permission to be absent from her classes in order to go by herself and try to distribute the questionnaires. Due to these main issues a different approach was adopted (with permission of the Dean) facilitated by an online link using Google Forms.

After discussion with senior faculty members, it was agreed that the researcher will send the link to the chairpersons from each of the nine locations, and in turn, they would send it to the selected faculty members, asking them to send the link by email to their students and putting the researcher as cc. Faculty members were also asked to make a small announcement in their classes regarding the questionnaire Appendix B shows a sample of the related mails. First a mail was sent by faculty members, but due to low respond rates the researcher sent reminders to students at the end of each week, the process for collecting data started on March 31, 2019 and ended on April 22, 2019. The number of filled questionnaires were 1,102 out of 3,154; thus having 34.9% respond rate. According to Nair et al., (2005) an average online response rate is found to be 31%, a same rate was found by Ogier (2005) who stated that the acceptable average is 31% compared to a 33.3% rate in Watt et al., (2002) study. This was deemed excellent for a study of the type.

Junior students were targeted in two courses that are common in all eight business majors and are taken during their first year of university. By this selection of courses, the researcher can avoid multiple answering from same students, the courses are Principles of Accounting I and Principles

of Accounting II. Senior students were targeted in advanced courses that they are required to register to be able to graduate (Table 4.4).

**Table 4. 4: Targeted Senior Courses from each major**

<b>Major</b>	<b>Target Course</b>
Accounting Information System	Advanced Accounting
Economics	Applied Econometrics
Banking and Finance	Financial Markets and Institutions
Hospitality Management	Revenue Management
Management Information System	Knowledge Management
Marketing	Retailing and Merchandising Management.
Business Management and International Business Management	Managing Entrepreneurship

**Source:** [www.liu.edu.lb](http://www.liu.edu.lb)

#### **4.6.3.2 Interview Sampling**

Non-probability sample was used to the selection of interviewees, since there exist numerous of stakeholders in the entrepreneurship field, and so it was impractical to obtain a probability sampling. In order to obtain the required information to achieve the research objectives, a purposive sampling criterion was used. Purposive sampling is appropriate when the intention of the researcher is to choose respondents with the purpose of learning about or understanding a main phenomenon (Plano-Clark and Creswell 2010). Qualitative research differs from quantitative research as it focuses on a smaller sample, which is directed to create insights into the phenomenon

under study (Patton, 2002). The researcher paid high attention in the selection of appropriate informants for conducting the interviews. The targeted participants for this research were stakeholders (individuals) that are concerned with the Lebanese entrepreneurship ecosystem and who are interested in this field. There are no specific guidelines for choosing an accurate sample size in qualitative studies, where sample size relies on what the researcher knows, the purpose of the inquiry, usefulness and credibility of information, and what can be done with available time and resources (Patton, 1990). In this research the sample size was based on informational considerations, as the purpose of the interview was to maximise the available information acquired from literature review and analysis of questionnaire data. The interview sample frame included 12 participants that were able to reflect their perceptions about the available entrepreneurial support provided by the university, government and outlining environment. The sample included:

- Students, 3 participants, randomly selected between final year undergraduate students.
- Business faculty, 3 participants. A full timer in LIU, and 2 part-timers in LIU and working in two other universities.
- Entrepreneurship practitioners from entrepreneurship support institutions, 2 participants.
- Start-up consultant, 1 participant.
- Economist, 1 participant.
- Entrepreneurs, 2 participants. One inside Lebanon and one working outside.

An email was sent to request their participation. As participants sent their approval, the researcher sent them the participants' information sheet, in order to provide them with the purpose of the interviews and to give their consent. Date, time range and place were set accordingly. In order to gather better data, it is important to inform participants about the nature of the research questions (Patton, 2002). For this purpose, a participant information sheet (Appendix C) was sent to participants via email. The participant information sheet provided information about the importance of the study, interview questions, participants rights. Formal consent was obtained by asking the participants to sign a consent form (Appendix D).

Interviews took place based on the participants' preference, some took place in their office, board room and coffee shop. Interviews lasted between 25 minutes and 45 minutes. After taking the approval from participants they were recorded using MP3 electronic recording device, however, two participants did not accept the interview to be recorded, for that notes were taken on spot.

Most of interviews were conducted face to face except for 3 interviews which were conducted through Skype (economist and both entrepreneurs). Two of the participants were interviewed more than once for clarifications, and some follow-up interviews took place with the help of WhatsApp.

#### **4.7 Piloting Questionnaire**

To guarantee that the survey will ensure accurate data and that questions are understandable, clear and appropriate it is important to conduct a piloting questionnaire (Cargan, 2007; Van Teijlingen and Hundley, 2002). Accordingly, a pilot study was done on 40 respondents from the LIU School of Business. The piloting allowed the researcher to attain feedback on the related questions regarding its clearness, wording and ordering. Reliability of questionnaire is found on Appendix H. After its competence the main concerns found was that some students were not familiar with the term “entrepreneurship”, and that others found it difficult to understand some English words as their second language was French and not English.

Due to these, the term “entrepreneurship” was briefly defined at the beginning of the questionnaire. In addition, the whole questionnaire was translated into Arabic, which is the native language of students. The translation was prepared with the help of two translators, the technique used to ensure the accuracy of the translation was back- translation technique. This technique tends to re-translate the translated script into its main language by a translator who did not see the original script. If any inconsistency is found between the back translation and the original that means there is an error in the translation (Tyupa, 2011).

#### **4.8 Questionnaire and Interview Design**

##### **4.8.1 Questionnaire Design**

The design of a questionnaire is critically important to the accuracy and reliability of data collected and minimization of bias (Cavana et al., 2001; Sekaran, 2000). Questions in the questionnaire need

to be linked to the research questions and hypotheses (Kumar, 2000). Different approaches have been used for designing questionnaires, Oppenheim (2000) referred that a questionnaire's first page should include the objectives of the study, the confidentiality and voluntarily of participants. The first part of questions should be related to the demographic background of respondents and then the questions related to variables can be stated. The layout of the questionnaire also affects the way participants respond and react to the questions (Neuman, 2006). Language in the questionnaire must be clear and easy to understand, and participants native question is encouraged to be use (Zikmund 2003; Kumar 2000). Questions were written in English as the university under study follows an American system, so the main courses given are in English. However, to ensure that all participants understand the questionnaire, it was translated to Arabic.

There are two main types of questions to be used in a questionnaire; open ended questions and closed questions, to decrease the possibility of bias in the analysis it is better to use closed- ended questions (Zinkmund, 2003). In this questionnaire open ended questions was not used, instead all questions were closed- ended. Common types of closed questions are single answer, multiple answer and Likert scale, the following is a brief description of their meanings based on Sekaran (2000):

- Single answer: respondents are only able to choose a single option. This scale was used in the questionnaire from question 1 till question 13 in the questionnaire.
- Multiple answer: respondents can choose more than a single option. This measurement was not used in this study.
- Likert scale: respondents express their opinion whether they agree or not based on a given ranking. This scale was used from question 14 till question 62 in the questionnaire.

For respondents to clearly understand the requested information and to encourage participants to successfully complete the entire questionnaire, the researcher needs to set the questionnaire design in a sequential matter (Zikmund, 2003). The current questionnaire first began with general questions and then moved on to more specific ones, this technique is referred to as funnel approach (Katz and Festinger 1966). Stated questions in the questionnaire were positively worded.

A small introduction informing participants about the objective of the study was accompanied with the survey. The first section of the questionnaire was related to demographic and background



questions, it did not require any names from respondents and thus, ensured their anonymity. Demographic variables included gender, educational level and background, grade point average, family income, working experience. Collection of such information will help in determining if there exist demographic differences between respondents. The first section was followed by questions related to variables affecting entrepreneurial intention of students.

Most questions were adapted from earlier validated studies, with some modifications, the questionnaire was developed with Theory of Planned Behaviour (TPB) in mind. In addition, to the original items found in TPB, some other variables were added to enable gathering data that will reflect the situation of Lebanon and enable the gathering of data regarding students' perceptions from different aspects. A close ended questionnaire was developed, with short questions to motivate students to respond. Questions linked to the model were measured on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree", it consisted of 62 questions (see Appendix E). Table 4.5 shows the different sources used for the developing of the questionnaire questions and the number of each question as found in the questionnaire distributed.

The study's questionnaire was divided into 12 sections:

Section A: Demographic characteristics, personal and family background.

Section B: Entrepreneurial Intention

Section C: Attitudes towards entrepreneurship.

Section D: Social Norms.

Section E: Perceived Behavioural Control.

Section F: Need for Achievement

Section G: Locus of Control

Section H: Risk Taking.

Section I: Innovativeness.

Section J: Perceived University Support.

Section K: Perceived Government Support.

Section L: Perceived Environmental Support

**Table 4. 5: Questionnaire Construction**

	Questionnaire Questions	Empirical Support	Question #
<b>Entrepreneurial Intention</b>	My professional goal is to be an entrepreneur.	Linan and Chen (2009); Autio et al., (2001); Solesvik et al., (2012); Davidsson (1995)	14
	I will make every effort to start my own business.		15
	I am seriously thinking of starting my business.		16
	I am ready to do anything to be an entrepreneur.		17
	I have the intention to start my business upon graduation from university.		18
	I have the intention to start my business in the next 5 years of graduation.		19
<b>Attitude towards Entrepreneurship</b>	Being an entrepreneur would give me satisfaction	Linan and Chen (2009); Solesvik et al., (2012)	20
	Being an entrepreneur implies more advantage than disadvantage to me.		21
	A career as an entrepreneur is attractive to me.		22
	I would like to be an entrepreneur rather than employed		23
	If I have the opportunity and resources, I would love to start a business.		24
<b>Social Norms</b>	My closest family members think I should start my career as an entrepreneur.	Kruegger et al., (2000); Shook and	25

	My closest friends think I should start my career as an entrepreneur.	Bratianu (2010); Solesvik et al., (2012); Souitaris et al., (2007)	26
	People that are important to me think I should start my career as an entrepreneur.		27
	I do care about the opinion of others if I decide to be an entrepreneur.		28
<b>Perceived Behavioural Control</b>	If I was an entrepreneur, I would have full control of my business.	Linan and Chen (2009); Autio et al., (2001); McGee et al., (2009)	29
	For me it is very easy to open a business.		30
	I am confident that if I start a business, failure of chances would be low.		31
	I know all the practical details to starting a business.		32
<b>Need for Achievement</b>	I always try to perform better than others.	Cassidy and Lynn (1989)	33
	I prefer hard work than easy work.		34
	I have no fear of failure.		35
	I do not mind working for free to get the experience I need.		36
<b>Locus of Control</b>	Business success is not due to luck.	Kristiansen and Indarti (2004); Linan and Chen (2009)	37
	My life is determined by my own acts.		38
	I do not give up when I fail in a task,		39
	Risk of failure is not a main concern for me.		40

<b>Propensity to take risk</b>	I don't mind working in a high-risk work environment, even if it will not provide me with a stable income	Mhango (2006); Gomez-Meija and Balkin (1989)	41
	One should start a business even if there is a chance of risk		42
<b>Innovativeness</b>	I often surprise people with new ideas.	Jackson (1994)	43
	I am a creative person.		44
	People often ask me for help in creative activities.		45
<b>Perceived University Support</b>	My university/ school provided me with the knowledge and information required to start a business.	Kraaijenbrink et al., (2010); Turker and Selcuk (2009); Mian (1997); Saeed et al., (2015); Keat et al., (2011); Franke and Luthje (2004); Souitaris et al., (2007)	46
	My university/ school encourages me to develop creative ideas for being an entrepreneur.		47
	During classes teachers provide students with real business examples.		48
	University/ school helped me to identify business opportunities.		49
	University/ school provided me with information regarding start-up centres in Lebanon.		50
	University/ school taught me how to prepare a feasibility study.		51
	University/school often prepares workshops, seminars and training regarding entrepreneurship.		52
	Lebanese government supports youth entrepreneurship.	Turker and Selcuk (2009); Autio et	53
	Lebanese government supports creation of new business.		54

<b>Perceived Government Support</b>	Procedures to start a business is easy in Lebanon.	al., (1997); Linan and Chen (2009);	55
	Lebanese government provides tax facilities for start-ups.	Tuker and Selcuk (2009)	56
	Lebanese government provides financial incentives for start-ups.		57
<b>Perceived Environmental Support</b>	In the Lebanese society having own business is better than being employed.	Turker and Selcuk (2009); Autio et al., (1997); Linan and Chen (2009); Tuker and Selcuk (2009); Schwarz et al., (2009)	58
	Lebanese economy provides many opportunities for entrepreneurs.		59
	It is easy to obtain loans in Lebanon.		60
	Infrastructure (electricity, internet, water...) in Lebanon supports start-up companies.		61
	The political instability in Lebanon does not affect the decision of opening a business.		62

#### 4.8.2 Interview Design

There exist different types of interviews, where they mainly differ on the terms of structure and on its purpose. The three main types of interviews are identified as structure interviews, semi-structured and unstructured interviews (Minichiello et al., 2008). For the aim of exploring and explaining the factors that affect students' entrepreneurial intention this research applied semi-structured interviews based on the literature review on entrepreneurship and results of the questionnaire distributed to students. Semi-structured interviews provide the researcher with the ability to uncover certain hidden issues of research interest (Malhotra 1993). Questions in the interview were asked for the purpose of gathering participants' views, feedback and elaboration on specific issues that were not sufficiently covered in the questionnaire. Chapter 5 mentions the questions asked in the conducted interviews.

## **4.9 Reliability and Validity**

“Any research can be affected by different kinds of factors which, while extraneous to the concerns of the research, can invalidate the findings” (Seliger and Shohamy, 1989, p.95). Reliability and validity concepts were derived from the measurement theory to evaluate if suggested questions in a study significantly measure the study variables (Oppenheim 2000; Breakwell et al., 1995). The reliability and validity of any study is highly related to questions’ design and accuracy of pilot testing (Saunders et al., 2003). They are important requirements for any scientific research (Trope, 2014), as the accuracy, dependability and credibility of results depend on it (Creswell, 2014).

Validity is concerned with testing whether the used instrument is measuring what it is expected to measure (Saunders et al., 2016). It is the extent to which research findings accurately represent what is happening (Collis and Hussey, 2003, p. 186). Three main tests of validity are usually used by researchers; content validity is concerned with whether measurement items consider what they are intended to measure, it includes judgmental procedures such as having experts review the questions and decide whether they are adequate or should be eliminated, another way is through the review of literature (Saunders et al., 2016). Criterion validity is related to the extent that measures are related to outcomes, to measure a criterion validity the researcher needs to compare it against a known measure or against itself; how well a certain measure predicts the outcome of another measure, it is often done through concurrent and predictive validity (Sekaran, 2006). Whereas, concurrent validity allows the researcher to assess used methods with already tried and validated measures. In contrast, predictive validity uses a future criterion measure rather than a contemporary one to test the validity (Bryman, 2008). Construct validity is concerned with investigating how good the test of measures is associated with theoretical assumptions (Cooper and Emory, 1995).

Besides, reliability measures the consistency of results across time and across the items in the instrument used for investigation, it specifies the degree to which the measure is free of errors and unbiased (Bryman, 2008). Cronbach’s coefficient is one of the most applied measure of reliability

as it is considered as a highly accurate test (Breakwell et al., 1995). It measures the internal consistency of the study, thus measuring how well a group of items measures a single unidimensional latent item (Hair et al., 2010). It also measures the homogeneity of a group of items in a questionnaire (Carmines and Zeller, 1990).

The greater the correlation between items, the greater is the internal reliability. Cronbach's alpha ranges from 0 to 1 and an alpha equal to 0.6 and 0.7 is considered as a good level of reliability (Bryman, 2008).

#### **4.9.1 Reliability and validity of questionnaire**

To confirm the validity of the questionnaire used in this study, literature on students' entrepreneurial intention was considered and used as a methodological device. In addition, the research supervisors reviewed the questionnaire to decrease the uncertainty of questions and increase its adequacy for collecting the required data. After refining the questionnaire, a pilot on 40 students was conducted and the test results showed that the average alpha was 0.798 (refer to Appendix H for details), which is a satisfactory level of reliability. Regarding the reliability of measures used to investigate students' entrepreneurial intention, the reliability Cronbach's alpha was taken into consideration.

#### **4.9.2 Reliability and validity of interview**

According to Saunders et al., (2009) in order to reach high reliability and validity in interviews, and guarantee the absence of bias, the researcher must prepare and follow the "5Ps mantra", which refers to "Prior Planning Prevents Poor Performance" (Saunders et al., 2009, p. 328). Reliability in interviews is related to bias concerning the interviewee and interviewer. Interviewee bias is found when the interviewee is unwilling to reveal or discuss certain issues, because of any perception towards the interviewer. In addition, timing of the interview may also decrease the willingness of respondents to take part in the interview and so bias the sample (Saunders et al., 2003). However, interviewer bias is related to the comments given or non-verbal behaviour of the interviewer and to the way the answers from the interviewee are recorded and interpreted (Saunders et al., 2003). To ensure a high reliability of response all respondents need to present with the same wording and standardized questions (Robson, 2002). As Stensaker (2004, p. 92) stated "*high reliability during different interviews will depend on whether the followed procedures*

*are identical from one interview to another, that the informants understand the questions the same way, and that the answers may be grouped without misunderstandings occurring”*. Validity in an interview is related to the researcher ability to gain full access of information from the respondent (Easterby –Smith et al., 1991), that is why it is important to the researcher to investigate the study using questions from different angles and asking clearly questions and not to interpret meanings, but instead probe the meanings (Saunders et al., 2003).

#### **4.10 Ethical Considerations**

The consideration of ethical issues is critical to ensure a research with good quality (Webster et al., 2014). Ethics in research refers to the behaviour of the researcher towards the rights of individuals who are the subject of the researcher’s work or who are affected by it (Zikmund, 2010). Business and social science studies give a great attention to ethical issues because they usually use human as their subjects; that is why it is important to review ethical implications before starting any research. As explained by Blaxter *et al.* (2001) a common cause of ethical challenge is due to conflicts of interest between the researcher and the researched individuals. The researcher may be excited about the research idea and be keen to collect in-depth high-quality data from individual understudy. And so, there is a risk that the researcher may be tempted to consider unethical research practice in order to try to obtain and/or retain some of the data. According to Bera (2004) obeying ethical standards encourage individuals under study to participate in the investigation.

Saunders et al., (2003) mentioned that usual ethic problems that occur during the research process are related to participants’ privacy, voluntary of participation and right to withdraw, consensus and dishonesty of participants, the effect the use, analysis and reporting of data may have on participant, in addition to the researcher’s behaviour.

To ensure ethical behaviour the researcher endeared to Staffordshire University Ethics Committee guidelines. According to Staffordshire University an ethics form must be signed by the researcher and the researcher supervisor and then an approval must be given by the university ethics committee before starting with the process of collecting data. A full approval was granted to the researcher on the 20<sup>th</sup> of March 2019 (see Appendix F). To safeguard this study from any ethical issues, the cover page of the questionnaire informed respondents about the purpose of the research, it also informed respondents about the voluntary choice of participating and that they are free to



withdraw from answering the questionnaire at any time. Confidentiality and anonymity of the respondents was ensured by the researcher, where neither the name nor the ID number of the student who answered the questionnaire is known.

Regarding the interview, at the beginning of each interview participants were informed about the purpose of the study, their right regarding privacy, anonymity and their ability to withdraw from the interview at any time. Besides, prior to the interview participant information sheet (Appendix C) was sent to participants. It provided information about the importance of the study, interview questions, participants rights, and promise of maintaining confidentiality of responses.

Answers from each participant were anonymous and no one could link what was answered to a specific respondent. Due to the request of some participants not to reveal their names or any information that reflects their identification, interviewees' names were replaced with codes. In addition, the researcher writing of the transcription was free of bias towards any group.

#### **4.11 Research Methodology Limitation**

As the case of any study, the applied methodology has some limitations beside its strength (Schulze, 2003). The main limitation in this study was related to generalization issue as the sampling method applied was based on non-probability rather than probability sampling.

Moreover, the study was cross-section and not longitudinal, which may affect the validity of findings since intention of students may change over time (Babbie, 2010), and so it is more appropriate if data is collected more than once over a period of time (Cook and Campell, 1979).

However, research methodology cannot be specified as better or worst; but it is categorized based on its ability to answer the research question (Cohen et al., 2000).

#### **4.12 Chapter Summary**

Chapter four dealt with the research methodology, it demonstrated the steps made by the researcher to choose the best approach to fulfil the research aims and objectives. It discussed the methodological approach, sampling strategy and method for data collection. Based on that, the researcher used mixed method approach, where questionnaire was distributed to university students and semi- structured interviews was conducted to obtain a deep understanding of the

perceptions that is affecting entrepreneurial intention in Lebanon. Moreover, methodology limitations were discussed in order to overcome them in future studies.

## **CHAPTER FIVE: QUANTITATIVE AND QUALITATIVE DATA ANALYSIS AND RESULTS**

### **5.1 Introduction**

Chapter five is split into three main sections, firstly the statistical procedures followed for the analysis of the data, secondly the analysis of the questionnaire and finally the analysis of the interviews. The triangulation of the data obtained from the mixed data collection is presented in Chapter six leading to the research conclusion. This chapter starts with an analysis of the quantitative data obtained from the questionnaire. The first step was data screening, which involves missing values, outliers, unengaged responses, normality, common method variance test and linearity. This is followed by a data descriptive analysis of respondents. Thirdly, confirmatory factor analysis was done in order to measure the reliability and validity of measuring the variables. Finally, a further analysis is conducted using structural equation modelling for data obtained from questionnaire and a template analysis is used to analyse data obtained from the interviews. The later part of this chapter is concerned with the qualitative data analysis

### **5.2 Quantitative Data Screening**

Before starting with data analysis, it is important to screen the collected data, so that it is clean from any missing information and outliers in order to acquire confidence about the data obtained (Hair et al., 2010; Tabachnick et al., 2001). The objective of data screening is to obtain true and accurate results regarding the relations between variables, it includes the analysis of missing values, outliers, unengaged responses, normality, common method variance test and linearity.

Quantitative data of this study was collected from students after receiving ethics approval from Staffordshire University Research Ethics Committee. Questionnaire was distributed to 3,154 students but answers came out from 1,102 students, thus obtaining 34.9% response rate.

### 5.2.1 Missing Values

A common problem in data analysis is concerned with missing data, where its effect is related to the amount of missed data and the reasons behind its missing (Tabachnick et al., 2001). Missing data affects the reliability of data, where it may affect results of generalisability due to data bias.

In this study no missing data records were reported, as the script used to collect the data prevented any. Answering each question in the questionnaire was obligatory, as the questionnaire was sent to students using google forms.

### 5.2.2 Outliers

After treating missing data, the next step is concerned with outliers. Outliers are different responses that have extreme values when compared to other responds. An outlier can be a univariate outlier meaning an extreme score on one variable or it can be a multivariate outlier, thus having a strange contribution of 2 or more variables (Tabachnick and Fidell, 2013).

The identification of outliers is important as they affect the normality of data, which is a critical precondition for the use of some analytical tests such as structural equation modelling (SEM). Hence, the removal of such answers makes the statistics and estimates more reliable. Mahalanobis distance statistic ( $D^2$ ) was used to identify the presence of outliers in the data collected. The test of statistical significance of Mahalanobis distance uses the Chi-square statistic at  $p < 0.01$  (Tabachnick and Fidell, 2007). The number of observed variables included in the model is 49 (from question 14 in the questionnaire to question 62), the degree of freedom (df) is equal to 49.

According to Tabachnick and Fidell (2007) “the criterion for multivariate outlier is Mahalanobis distance at  $p < 0.001$ ” (p. 99). The number of observed variables included in the model, that is from question 14 to question 62 in the questionnaire = 49 = degrees of freedom, all responses with Mahalanobis values greater than the critical chi square (85.35) for (DF = 49, P-value = 0.001) are excluded from the analysis. The table value of chi-square at p-value  $< 0.01$  is 85.35. Thus any case having a Mahalanobis distance greater than chi-square equals 85.35 is statistically and significantly a multivariate outlier.

Based on this criterion 100 cases of multivariate outliers were detected and were deleted from the data base, leaving a final data of 1002 cases. Moreover, unengaged respondents may be present

since Likert scale was used in the questionnaire. Unengaged respondents mean that respondents did select the same answer in most of the questions, sometimes respondents will enter '3, 3, 3, 3...' for example for every single survey item, this participant is clearly not engaged, and their responses must be removed from the analysis. All responses with standard deviation = 0 for the group of questions q14 till q62 were removed from the analysis, nine responses as a result were removed. Finally, the researcher was left with data from 993 participants for analysis. The following sections deals with the normal distribution of the data.

### **5.2.3 Normality of Data**

To obtain robust results most techniques used in SEM assume the normality of data collected, violating this assumption can be problematic, as it affects the analysis of data and make results invalid (Hair et al., 2011). The effect of non-normality on SEM depends on its extent and source; the greater the extent of non-normality, the greater will be the magnitude of the problem.

Skewness and Kurtosis are often used to examine normality, skewness shows the balance and symmetry of data distribution, whereas kurtosis indicates the height of distribution. Accordingly, testing skewness and kurtosis of every variable in the study is a common way to detect whether the assumptions for normality are met. In order to be considered acceptable the values for skewness must vary between -2 and +2 and for kurtosis between -3 and +3 (Hair et al., 1998). The skewness and kurtosis values of all variables are presented in Appendix G, which showed that all variables are within the acceptable range.

### **5.2.4 Common Method Variance Test**

Common Method Bias needs to be investigated before data analysis, according to Eichhorn (2014) bias is higher when survey is distributed online, which is the case of this study. The problem of Common Method Variance (CMV) bias occurs when both dependent and independent variables are measured from the same respondents (Hair et al., 2010). One of the most used techniques to investigate CMV bias is Harman's single factor. The basic concept of this method is that if a substantial amount of common method variance exists, a single factor will emerge from the factor analysis or one general factor will account for the majority of the covariance among the research variables. Results showed that one component explained 22.66% of the total variance, which is

lower than the estimated threshold level of 50%, implying the non-existence of a sole dominant factor (Hair et al., 2010).

### 5.2.5 Linearity

Checking the linearity between dependent and independent variables is essential for structural equation modelling analysis. It refers to the degree of correlation that exists between variables. Linearity is concerned with the degree to which a change in the dependent variable is related with the independent variable (Hair et al., 2010). To examine the linearity of variables, Pearson's  $r$  basically captures the linear relationships among variables; if there are significant nonlinear relationships among variables, they should be ignored (Tabachnick and Fidell, 2007). Averages were calculated for the group of items making a construct, to study linearity between Independent and dependent variables in the model. The means are recorded in the below Table 5.1.

**Table 5. 1: Mean and Standard Deviation**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Entrepreneurial Intention	993	1.00	5.00	3.97	0.86
Attitudes	993	1.00	5.00	4.35	0.73
Social Norms	993	1.00	5.00	3.39	0.88
Perceived Behavioural Control	993	1.00	5.00	3.10	0.72
Need for achievement	993	1.00	5.00	3.91	0.76
Locus of Control	993	1.00	5.00	4.19	0.73
Risk taking	993	1.00	5.00	3.56	0.85
Innovativeness	993	1.00	5.00	3.58	0.84
Perceived University support	993	1.00	5.00	3.36	0.87

Perceived Governmental support	993	1.00	5.00	2.07	0.89
Perceived Environmental support	993	1.00	5.00	2.32	0.77

The linearity was tested between the Independent Variable (IV) and the Dependent Variable (DV).

H<sub>0</sub>: The relationship is not linear between IV and DV.

H<sub>1</sub>: The relationship is linear between IV and DV.

As shown in Table 5.2 all the bivariate linearity tests indicated a P-value equals to 0 which is less than then 0.05, thus Ho is rejected Ho, and H<sub>1</sub> is accepted indicating a linear relationship between all Independent Variables and Dependent Variables in the model.

**Table 5. 2: P-value of linearity test**

Independent Variable → Dependent Variable		P-value
Attitudes → Need for achievement	Linearity	0.00
Attitudes → Locus of Control	Linearity	0.00
Attitudes → Risk taking	Linearity	0.00
Attitudes → Innovativeness	Linearity	0.00
Perceived Behavioural Control → Need for achievement	Linearity	0.00
Perceived Behavioural Control → Locus of Control	Linearity	0.00
Perceived Behavioural Control → Risk taking	Linearity	0.00
Perceived Behavioural Control → Innovativeness	Linearity	0.00
Attitudes → Perceived university support	Linearity	0.00

Attitudes → Perceived Governmental support	Linearity	0.00
Attitudes → Perceived Environmental support	Linearity	0.00
Perceived Behavioural Control → Perceived university support	Linearity	0.00
Perceived Behavioural Control → Perceived Governmental support	Linearity	0.00
Perceived Behavioural Control → Perceived Environmental support	Linearity	0.00
Attitudes → Social Norms	Linearity	0.00
Perceived Behavioural Control → Social Norms	Linearity	0.00

### 5.3 Descriptive statistics

After data screening, descriptive analysis is examined for further analysis (Pallant, 2010). This section provides a summary of the mean scores for entrepreneurial intention along with the standard deviation of the 10 variables as shown in Table 5.3. In addition, general information about the respondents of the questionnaire is presented.



**Table 5. 3: Descriptive Statistics- Mean and Standard Deviation**

	<b>Mean</b>	<b>Standard Deviation</b>
<b>Entrepreneurial Intention:</b>		
My professional goal is to be an entrepreneur.	4.02	1.008
I will make every effort to start my own business.	4.19	1.014
I am seriously thinking of starting my business	3.90	1.120
I am ready to do anything to be an entrepreneur.	4.18	1.010
I have the intention to start my own business upon graduation from university.	3.68	1.195
I have the intention to start my business in the next 5 years of graduation.	3.84	1.151
	<b>3.97</b>	<b>0.86</b>
<b>Attitudes towards entrepreneurship:</b>		
Being an entrepreneur would give me satisfaction.	4.40	0.901
Being an entrepreneur implies more advantage than disadvantage to me.	4.45	0.835
A career as an entrepreneur is attractive to me.	4.17	0.995
I would like to be an entrepreneur rather than employed.	4.35	0.926
If I have the opportunity and resources, I would love to start a business.	4.37	0.880
	<b>4.35</b>	<b>0.73</b>
<b>Social Norms:</b>		
My closest family members think I should start my career as an entrepreneur.	3.51	1.099
My closest friends think I should start my career as an entrepreneur	3.48	1.065
People that are important to me think I should start my career as an entrepreneur.	3.65	1.068
I do care about the opinion of others If I decide to be an entrepreneur.	2.93	1.347
	<b>3.39</b>	<b>0.88</b>
<b>Perceived Behavioural Control:</b>		
If I was an entrepreneur, I would have full control of my business.	4.16	0.920
For me it is very easy to open a business.	2.32	1.051
I am confident that if I start a business, failure of chances would be low.	3.11	1.009
I know all the practical details of starting a business.	2.82	1.068
	<b>3.10</b>	<b>0.72</b>

<b>Need for Achievement:</b>		
I always try to perform better than others.	4.04	0.927
I prefer hard work than easy work.	3.86	0.994
I have no fear of failure.	3.88	1.116
I do not mind working for free to get the experience I need.	3.83	1.152
	<b>3.91</b>	<b>0.76</b>
<b>Locus of Control:</b>		
Business success is not due to luck.	3.99	1.065
My life is determined by my own acts.	4.08	0.926
I don't give up when I fail in a task.	4.49	0.784
	<b>4.19</b>	<b>0.73</b>
<b>Risk Taking:</b>		
Risk of failure is not a main concern for me.	3.87	1.050
I don't mind working in a high-risk work environment, even if it will not provide me with a stable income.	3.22	1.159
One should start a business even if there is a chance of risk.	3.59	1.103
	<b>3.56</b>	<b>0.85</b>
<b>Innovativeness:</b>		
I often surprise people with new ideas.	3.74	0.935
I am a creative person.	3.64	0.913
People often ask me for help in creative activities	3.36	1.058
	<b>3.58</b>	<b>0.84</b>
<b>Perceived University Support:</b>		
My university provides me with the knowledge and information required to start a business.	3.29	1.116
My university encourages me to develop creative ideas for being an entrepreneur.	3.46	1.120
During classes teachers provide students with real business examples.	3.96	1.014
University helps me to identify business opportunities.	3.27	1.111
University provides me with information regarding start-up centres in Lebanon (such as Berytech, BIAT, Entrepreneurs Lebanon.etc.)	2.93	1.196

University taught me how to prepare a feasibility study.	3.35	1.163
University often prepares workshops, seminars and training regarding entrepreneurship.	3.27	1.115
	<b>3.36</b>	<b>0.87</b>
<b>Perceived Governmental Support:</b>		
Lebanese government supports youth entrepreneurship.	2.12	1.072
Lebanese government supports creation of new business.	2.14	1.100
Procedures to start a business is easy in Lebanon.	2.02	1.060
Lebanese Government provides tax facilities for start-ups.	2.08	1.031
Lebanese Government provides financial incentives for start-ups.	2.01	1.007
	<b>2.07</b>	<b>0.89</b>
<b>Perceived Environmental Support:</b>		
In the Lebanese society having own business is better than being employed.	3.35	1.305
Lebanese economy provides many opportunities for entrepreneurs.	2.00	1.050
It is easy to obtain loans in Lebanon.	2.17	1.081
Infrastructure (electricity, internet, water) in Lebanon supports start-up companies.	1.87	1.027
The political instability in Lebanon does not affect the decision of opening a business.	2.18	1.371
	<b>2.32</b>	<b>0.77</b>

**Likert Scale measure: 1 strongly disagree and 5 strongly agree**

### **5.3.1 Gender**

The survey was equally distributed between genders, were 502 (50.6%) of respondents were female and 491 (49.41%) were males, shown in Table 5.4. These suggest that this research has an adequate number of male and female respondents to investigate any gender difference in entrepreneurial intention of students. As some studies show that there exists a gender difference in entrepreneurial intention (Maes et al., 2014; Hisrich, 2007).

**Table 5. 4: Gender Distribution of respondents**

<b>Gender</b>		
<b>Category</b>	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Female</b>	502	50.6
<b>Male</b>	491	49.4
<b>Total</b>	993	100.0

### 5.3.2 Geographical Location

The survey was distributed to 9 different locations in Lebanon, 26.8% of respondents resided in Beirut, 16.9% in West Bekaa, 12.8% in Saida, 11.9% in Tripoli, 10.4% in Rayak, 7.4% in Tyre, 6.9% in Nabatieh, 4.1% in Akkar and 2.8% in Mount Lebanon, shown in Table 5.5.

**Table 5. 5: Geographical distribution of respondents**

<b>Campus</b>		
<b>Categories</b>	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Beirut</b>	266	26.8
<b>Khiyara</b>	168	16.9
<b>Saida</b>	127	12.8
<b>Tripoli</b>	118	11.9
<b>Rayak</b>	103	10.4
<b>Tyre</b>	73	7.4
<b>Nabatieh</b>	69	6.9
<b>Akkar</b>	41	4.1
<b>Mount Lebanon</b>	28	2.8
<b>Total</b>	993	100.0

### 5.3.3 Age

As shown in Table 5.7, 39.8% of the respondents were in the age category of 17- 19 years, 39.7% were in the age category 20-22 years, 20.3% between 23-25 years, and only 0.2% were in the age category 26-29 years. Age category data is important as the purpose of this study is to focus on students which are recognized as youth, shown in Table 5.6.

**Table 5. 6: Age of respondents**

<b>Age</b>		
<b>Categories</b>	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>17-19</b>	395	39.8
<b>20-22</b>	394	39.7
<b>23-25</b>	202	20.3
<b>26-29</b>	2	0.2
<b>Greater than 29</b>	0	0.0
<b>Total</b>	993	100.0

### 5.3.4 Private and Public High School Enrolment

Data showed that respondents' previous enrolment in high school were equally distributed between private and public school, where 50.2% came from private schools and 49.8% came from public schools, shown in Table 5.7.

**Table 5. 7: High School Background**

<b>In High School you were in:</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Private School</b>	498	50.2
<b>Public School</b>	495	49.8
<b>Total</b>	993	100.0

### 5.3.5 Employment status

Cumulatively, most students were not employed (59.9%), which reflects the unemployment problem in Lebanon, this is followed by 24.5% of students working in

**Table 5. 8: Employment Status**

<b>Employment Status</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>I do not work</b>	835	84.1
<b>I work in a private business</b>	86	8.7
<b>I work in my family business</b>	31	3.1
<b>I work in public institution</b>	28	2.9
<b>I run my own business</b>	13	1.3
<b>Total</b>	993	100.0

### 5.3.6 Family income:

As is evident from results shown in Table 5.10 around 41.5% of students' monthly family income is between \$501 and \$1,000; 30.9% of their family's income is between \$1,001 and \$2,000; 14.4% earns more than \$2,000 and 13.2% earns a salary of less than \$500, shown in Table 5.9.

**Table 5. 9: Family Income**

<b>Family Monthly Income:</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Between \$501 and \$1,000</b>	412	41.5
<b>Between \$1,001 and \$2,000</b>	307	30.9
<b>More than \$2,000</b>	143	14.4
<b>Less than \$500</b>	131	13.2
<b>Total</b>	993	100.0

### 5.3.7 Family member's status of self-employment

Most students (56.9%) have a family member, friend or relative that owns a business compared to 43.1% of respondents that do not have any family member, friend or relative engaged in business activity. There is a possibility that respondents are influenced by entrepreneurial background, which may affect their career choice. Therefore, such data was gathered, and a detailed status of self-employment is presented in Table 5.10.

**Table 5. 10: Family/Friends/Relative's self employed**

<b>Does anyone you care about run their own business?</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>None</b>	428	43.1
<b>Father</b>	286	28.8
<b>Friend</b>	107	10.8
<b>Sister/Brother</b>	79	8.0
<b>Aunt/Uncle</b>	63	6.3
<b>Mother</b>	30	3.0
<b>Total</b>	993	100.0

#### **5.3.8 Plans upon graduation**

As per results shown in Table 5.12 around one third of respondents (37.9%) showed a preference of further studying after graduation, followed by those who are planning to start a business (21.2%) and those who are planning to work in private sector (20.7%) and public sector (17%), whereas only 3.1% of respondents plan to work in family business, presented in Table 5.11.

It is important to know students' plans upon graduation, whether they had preferences for further education or seeking for employment options. Such information is important for educationist and policy makers to consider.



**Table 5. 11: Plans upon graduation**

<b>What are you planning to do upon graduation?</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Postgraduate studies</b>	376	37.9
<b>Start my own business</b>	211	21.2
<b>Work as an employee in private sector</b>	206	20.7
<b>Work as an employee in public sector</b>	169	17.0
<b>Work in family business</b>	31	3.1
<b>Total</b>	993	100.0

### 5.3.9 Preferred location to open a business

Most of respondents (57.7%) showed that in case they are to open their own business, they prefer to open it outside Lebanon, in comparison to 43.3% prefer a business inside the country, as shown in Table 5.12. This information reflects that youth are losing hope in their own country and the opportunity it can provide them.

**Table 5. 12: Preference in opening business**

<b>If you are to open a business where do you prefer to open it?</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Lebanon</b>	573	57.7
<b>Abroad</b>	420	42.3
<b>Total</b>	993	100.0

### 5.3.10 Attending Entrepreneurship Course/ Training

Majority of respondents in this study never took any entrepreneurship course or training (70.2%), in comparison with 29.8% that took a course. Moreover, most students would like to be involved in such courses/ trainings (88.6%), such information is presented in Table 5.13 and 5.14.

**Table 5. 13: Do you like to attend entrepreneurship courses/ trainings**

<b>Do you like to attend entrepreneurship courses and training?</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>Yes</b>	880	88.6
<b>No</b>	113	11.4
<b>Total</b>	993	100.0

**Table 5. 14: Did you take any entrepreneurial courses/ trainings**

<b>Did you take any entrepreneurial course or training session?</b>		
	<b>Frequency (in numbers)</b>	<b>Per cent (%)</b>
<b>No</b>	697	70.2
<b>Yes</b>	296	29.8
<b>Total</b>	993	100.0

## **5.4 Structural Equation Modelling**

Structural Equation Modelling (SEM) is applied in this research to test on the study model and the hypothesis. SEM is a widely accepted method for the analysis of data in the behavioural and social science research using quantitative data, due to its ability of providing modification and assessment of the theoretical models (Xie, 2011). Such model is useful in examining the inter-dependent relationship between latent variables (Hair et al., 1998). It assesses how good a proposed conceptual model can fit the collected data and it also ascertain the structural relationship between the sets of latent variables (Byrne, 2001). SEM is found to be useful in estimating between intention and its antecedents (Schlaegel and Koenig, 2014; Kautonen et al., 2013).

There are three main advantages for the use of structural equation modelling. Firstly, it offers statistical efficiency concurrently, secondly it is able to systematically examine the relationships between observed and latent variable, thirdly it exhibits the concepts that are not observed through these associations and justify the measurement error in the estimation process (Kline, 2005). According to Anderson and Gerbing (1988) this structural test involves a two stage process, the initial stage is to ascertain good measurement of the constructs and the latter stage requires an evaluation of the structural relationships.

The measurement model refers to the specification and testing of the constructs that will later form the full model. The structural model refers to the testing of the relationships between the established constructs that were developed from the first step of SEM. The main purpose of developing the measurement model before the full structural model is to assess the reliability and validity of the constructs before using it in the full model (Anderson and Gerbing, 1988). In this study, the measurement and structural models were generated and estimated using SPSS 24 and AMOS 24.

## **5.5 Assessment of Measurement Model**

To assure scale validity and reliability an evaluation of the adequacy of measurement model is required. This can be achieved by analysing its reliability and convergent validity. According to Hair et al., (2010) it is appropriate to adopt a two- step approach for EM, first the assessment of

measurement model and second the assessment of structural model. The former is done by gauging the criteria of reliability and convergent validity.

### 5.5.1 Reliability

Cronbach's alpha is mainly used to examine the reliability of the internal consistency of the constructs. A cut-off point of 0.70 in the alpha's value indicates an acceptable degree of reliability of the construct (Hair et al., 1998). As shown in Table 5.15 the model's construct attained Cronbach's alpha above the recommended cut- off where the reliability coefficient ranged from 0.7 to 0.9. Hence, all variables exhibit internal consistency, and so no item is to be deleted, the confirmatory factor analysis will include a total of 49 observed variables.

**Table 5. 15: Reliability Analysis**

Construct	Number of indicators	Cronbach's alpha
Entrepreneurial Intention	6	0.9
Attitudes	5	0.9
Social Norms	4	0.8
Perceived Behavioural Control	4	0.7
Need for achievement	4	0.7
Locus of Control	3	0.7
Risk taking	3	0.7
Innovativeness	3	0.8
Perceived university support	7	0.9
Perceived Governmental support	5	0.9
Perceived Environmental support	5	0.7

### 5.5.2 Convergent Validity (CV)

Validity refers to the degree to which an instrument measures what it is intended to measure (Bayton and Greenhalgh, 2004). Measurement model validity was evaluated by the use of

Confirmatory Factor Analysis(CFA), the use of CFA is properly when applied to a study that adopts a strong and valid theoretical model such as the Theory of Planned Behaviour which is applied in this study. The validity of the measurement model was assessed with convergent validity. According to Byrne (2001) convergent validity describes the degree to which dimensional items of the same concept are correlated (Byrne, 2001). And so, it refers to the extent to which two construct measurement that theoretically should be linked are related. Fornell and Larcker (1981) recommended the use of three conditions to evaluate the convergent validity of the measurement model:

- Standardized factor loading ( $\lambda$ ); is the indicator measurement error, to be significant; the standardized regression weight should be  $> 0.5$ .
- Composite Reliability (CR) which is notated as  $\rho$ , is the internal consistency of the indicator measuring the given factor, it should exceed 0.60 (Bagozzi and Yi, 1988).
- Average Variance Extracted (AVE), measures the amount of variance due to measurement error, should exceed 0.50 based on Kline (1998).

Table 5.16 shows that the study of composite reliability (CR) showed that all values were above 0.7. The composite reliabilities of different measures were found to range from 0.7 to 0.9, which satisfactory meets the threshold. This shows that the measurement model was internally consistent and that all the indicators or variables observed were measuring their corresponding latent variables (Hair et al., 2010).

Average variance extracted (AVE) was also calculated and it provided information on the amount of variance that a construct obtains from indicators in relation to the amount of variance due to measurement error. As shown in table 5.16 in all cases the results were greater than 0.5, meaning that it was found that more than 50% of the variance of constructs were due to its indicators (Hair et al., 2010).

**Table 5. 16: Constructs' Composite Reliability and Average Variance Extracted**

<b>Construct</b>	<b>Composite Reliability</b>	<b>Average Variance Extracted</b>
Entrepreneurial Intention	0.88	0.57
Attitudes	0.86	0.56
Social Norms	0.88	0.71
Perceived Behavioural Control	0.7	0.44
Need for Achievement	0.7	0.5
Locus of Control	0.7	0.43
Risk Taking	0.7	0.4
Innovativeness	0.8	0.7
Perceived University Support	0.89	0.54
Perceived Governmental Support	0.9	0.6
Perceived Environmental Support	0.8	0.54

Findings on Table 5.17 show that most items have a standardized factor loading significantly larger than the required minimum of 0.5, with the exception of 1 item (q\_28) from social norms construct, 1 item (q\_29) from perceived behavioural control, 1 item (q\_36) from need for achievement construct, and two items (q\_58 and q\_62) from perceived environmental support construct. Since those items did not match the requirement, they were extracted from the data set for further analysis. Subsequently, the analysis were rerun with the exclusion of these 5 items and new scores for factor loading was attained leading to all remaining items having a having a factor loading greater than 0.5, final results are shown on Table 5.18.

**Table 5. 17: Factor Loading**

	Factor Loading										
	EI	Att	SN	PBC	NfA	LoC	RT	INN	PUS	PGS	PES
q_14	0.79										
q_15	0.88										
q_16	0.87										
q_17	0.66										
q_18	0.69										
q_19	0.56										
q_20		0.81									
q_21		0.77									
q_22		0.75									
q_23		0.75									
q_24		0.65									
q_25			0.8								
q_26			0.87								
q_27			0.87								
q_28			0.29								
q_29				0.4							
q_30				0.58							
q_31				0.7							
q_32				0.69							
q_33					0.65						
q_34					0.82						
q_35					0.51						
q_36					0.45						
q_37						0.63					
q_38						0.72					
q_39						0.61					
q_40							0.5				
q_41							0.8				
q_42							0.59				
q_43								0.76			
q_44								0.84			
q_45								0.78			
q_46									0.75		
q_47									0.79		
q_48									0.67		
q_49									0.83		
q_50									0.78		
q_51									0.67		
q_52									0.66		
q_53										0.78	
q_54										0.81	
q_55										0.72	
q_56										0.81	
q_57										0.86	
q_58											0.21
q_59											0.72
q_60											0.67
q_61											0.81
q_62											0.46

**Table 5. 18: Final items included in analysis and their factor loading**

	Factor Loading										
	EI	Att	SN	PBC	NfA	LoC	RT	INN	PUS	PGS	PES
q_14	0.79										
q_15	0.88										
q_16	0.87										
q_17	0.66										
q_18	0.69										
q_19	0.56										
q_20		0.81									
q_21		0.77									
q_22		0.75									
q_23		0.75									
q_24		0.65									
q_25			0.8								
q_26			0.86								
q_27			0.87								
q_30				0.62							
q_31				0.66							
q_32				0.7							
q_33					0.63						
q_34					0.87						
q_35					0.47						
q_37						0.63					
q_38						0.72					
q_39						0.61					
q_40							0.5				
q_41							0.8				
q_42							0.59				
q_43								0.76			
q_44								0.84			
q_45								0.78			
q_46									0.75		
q_47									0.79		
q_48									0.67		
q_49									0.83		
q_50									0.78		
q_51									0.67		
q_52									0.66		
q_53										0.78	
q_54										0.81	
q_55										0.72	
q_56										0.81	
q_57										0.86	
q_59											0.73
q_60											0.69
q_61											0.78



## 5.6 Assessment of Structural Model

Once the reliability and validity of latent variables are established, the next step is the assessment of structural model. The major issue in examining the theoretical framework is whether it is in conflict with the reality as seen in the sample, such as how good is the theoretical model in fitting the data set. In the structural equation modelling, the fit indices establish whether the model is acceptable overall. If the model is acceptable researchers then establish whether specific paths are significant or not. Table 5.19 illustrates “goodness of fit indices” as suggested by Kline (2005), the below table also provides a definition for each measurement along with its threshold values.

**Table 5. 19: Goodness of fit reference table**

Measure	Name	Description	Cut-off for good fit
$\chi^2$	Model Chi- Square	Assess overall fit and the discrepancy between the sample and fitted covariance matrices. Sensitive to sample size. $H_0$ : The model fits perfectly.	p-value > 0.05
(A)GFI	(Adjusted) Goodness of Fit	GFI is the proportion of variance accounted for by the estimated population covariance. Analogous to $R^2$ . AGFI favours parsimony.	$GFI \geq 0.95$ $AGFI \geq 0.90$
(N)NFI TLI	(Non) Normed- Fit Index Tucker Lewis index	An NFI of .95, indicates the model of interest improves the fit by 95% relative to the null model. NNFI is preferable for smaller samples. Sometimes the NNFI is called the Tucker Lewis index (TLI)	$NFI \geq 0.95$ $NNFI \geq 0.95$
CFI	Comparative Fit Index	A revised form of NFI. Not very sensitive to sample size. Compares the fit of a target model to the fit of an independent, or null, model.	$CFI \geq .90$
RMSEA	Root Mean Square Error of Approximation	A parsimony-adjusted index. Values closer to 0 represent a good fit.	$RMSEA < 0.08$
(S)RMR	(Standardized) Root Mean Square Residual	The square-root of the difference between the residuals of the sample covariance matrix and the hypothesized model.	$SRMR < 0.08$

Source: Kline, R. (2005)

In addition to the fit indicators in the Table 5.19, Hu and Bentler (1999) suggested the use of the Normed chi-square (CMIN/DF) which is the ratio of the  $\chi^2$  divided by the degree of freedom and a value less than 5 indicates acceptable fit (Mrsh and Hocevar, 1985).

An analysis of the results is shown in Table 5.20; it reflects that the measurement model has achieved a good fit for the indexes except for the construct “Perceived Governmental Support”.

**Table 5.20: Goodness of fit indices for latent variables in the model**

Factor name	x2	p-value of X2 test	CMIN/DF	GFI	AGFI	NFI	TLI	CFI	RMSEA	RMR
<b>Entrepreneurial Intention</b>	99.91	0.00	11.10	0.97	0.92	0.97	0.95	0.97	0.10	0.04
<b>Attitudes</b>	61.03	0.00	12.21	0.98	0.93	0.97	0.95	0.97	0.11	0.03
<b>Social Norms</b>	Has no GOF indicators, it consists of three indicators only									
<b>Perceived Behavioural Control</b>	Has no GOF indicators, it consists of three indicators only									
<b>Need for achievement</b>	Has no GOF indicators, it consists of three indicators only									
<b>Locus of Control</b>	Has no GOF indicators, it consists of three indicators only									
<b>Risk taking</b>	Has no GOF indicators, it consists of three indicators only									
<b>Innovativeness</b>	Has no GOF indicators, it consists of three indicators only									
<b>Perceived university support</b>	252.95	0.00	18.07	0.93	0.86	0.93	0.90	0.93	0.13	0.06
<b>Perceived Governmental support</b>	686.38	0.00	137.28	0.77	0.32	0.80	0.61	0.81	0.37	0.09
<b>Perceived Environmental support</b>	22.45	0.00	11.22	0.99	0.94	0.98	0.94	0.98	0.10	0.04

To improve the fitness of the construct “perceived governmental support” modification indices were used, as shown in Table 5.21 AMOS suggested that modifications should be done in questions 53 or 54, as the highest covariance was found to be between question 53 and question 54 (e39 and e40) in the questionnaire. The question with the lowest factor loading is suggested to

be removed so that the fit indices can be improved. Based on that question 53 was removed from the study data as it has a lowest factor loading (0.78) compared to factor loading of question 54 (0.81), such data can be found on table on page. After omitting question 53 from the survey, the model was re-run and the indices was improved as presented in Table 5.22.

**Table 5. 21: Covariance: (Group number 1 - Default model)**

			M.I.	Par Change
e42	<-->	e43	250.513	0.195
e40	<-->	e43	59.884	-0.101
e40	<-->	e42	100.862	-0.147
e39	<-->	e43	84.631	-0.124
e39	<-->	e42	98.586	-0.149
e39	<-->	e40	452.996	0.34

**Table 5. 22: Comparison of fitness indices for perceived governmental control.**

Factor name	x2	p-value of X2 test	CMIN/DF	GFI	AGFI	NFI	TLI	CFI	RMSEA	RMR
<b>Perceived Governmental support</b>	686.38	0.00	137.28	0.77	0.32	0.80	0.61	0.81	0.37	0.09
<b>Adjusted Perceived Governmental support</b>	51.91	0.00	25.95	0.98	0.87	0.98	0.93	0.98	0.16	0.04

Concerning the overall result of the structural model study, Table 5.23 shows the goodness of fit indices. It was found that the value for Normed chi-square (CMIN/DF) is 3.68 which is close to the recommended cut off value of 3. The values of NFI and CFI which are near 1 imply a good fit. Moreover, GFI and AGI are close to 0.9 which are considered acceptable. RMSEA and RMR indices are less 0.08 and so reflect a good fit. This indicates that the model has a good fit to dataset, since all fit indices have met their individual common acceptable values, this verifies that there is an acceptable fit of the structural model with the data set. Thus, we can proceed to examine the hypothesized relationships within the model.

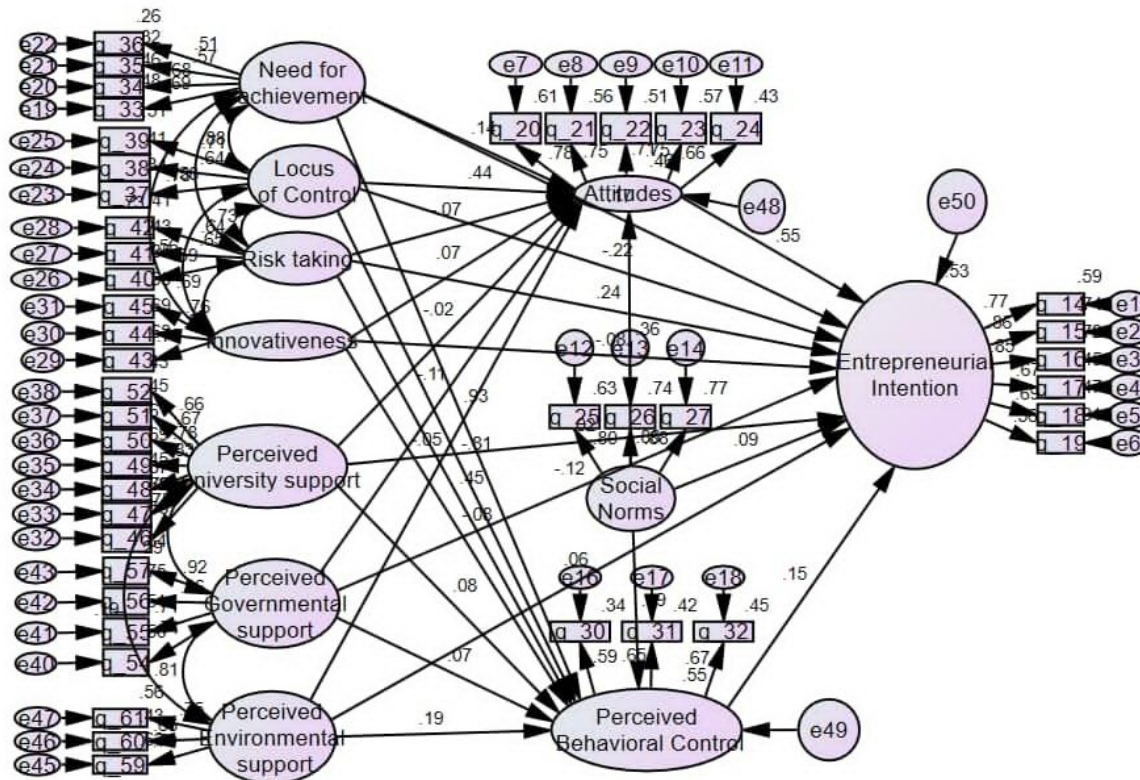
**Table 5. 23: Model Goodness of fit**

	<b>x2</b>	<b>p-value of X2 test</b>	<b>CMIN/DF</b>	<b>GFI</b>	<b>AGFI</b>	<b>NFI</b>	<b>TLI</b>	<b>CFI</b>	<b>RMSEA</b>	<b>RMR</b>
<b>Structural Equation Model</b>	3188.25	0.00	3.68	0.86	0.84	0.86	0.89	0.90	0.05	0.011

Theoretical propositions about the phenomenon study is represented in Figure 5.1, it shows the final results of the SEM model, here it is important to clarify that the squares in the model reflect the measured variables (observed variables) and that includes the questions in the questionnaire, the small ellipses are the errors associated with the measured variables, the big circle and ellipses are the latent constructs and the arrows are the direct relations.

Figure 5.1 shows the connection between latent and observed variables in a structural equation model. The interrelationship among both observed and latent variables are graphically represented in a path diagram by one way and two way arrows. One way arrows indicate that the variable at the end of the arrow is explained in the model by the variable at the beginning of the arrow, such relationship is interpreted by that the variable at the end of the arrow is assumed to be the effect and the one at the beginning is assumed to be the cause. Whereas, two- way arrows, represented as curved lines, with an arrow head at each end. Dependent variables are variables that at least receive one way arrows from another variable in the model, whereas independent variables are variables that emanate paths.

As can be seen by examining Figure 5.1, the final data comes from a set of 44 questions, which are the observed variables. After the previous modifications the latent variable “Need for Achievement” (NfA) is measured by 4 items, the latent variable “Locus of Control” (LoC) is measured by 3 items, the latent variable “Risk Taking” (RT) is measured by 3 items, the latent variable “Innovativeness” (INN) by 3 items, the latent variable “Perceived University Support” (PUS) by 7 items, the latent variable “Perceived Governmental Support” (PGS) by 4 items, the latent variable “Perceived Environmental Support” (PES) by 3 items, the latent variable “Attitudes” (ATD) by 5 items, the latent variable “Social Norms” (SN) by 3 items, the latent variable “Perceived Behavioural Control” (PBC) is also measured by 3 items and the latent variable “Entrepreneurial Intention” (EI) by 6 items.



**Figure 5. 1: Results of structural equation model.**

### **5.6.2 Hypotheses Testing**

Structural equation modelling outcome was employed to analyse relationships between the constructs in this study. Standardized regression weights and their statistical significance are obtained in the model in order to accept or reject the hypothesis, which were previously explained in Chapter Three.

#### **5.6.2.1 Theory of Planned Behaviour constructs**

As examined in Table 5.24 the results of hypotheses testing showed that personal attitudes (p-value  $<0.001$ ), perceived behavioural control (p-value = 0.05) and social norms (p-value = 0.01) had positive and significant effect on students' entrepreneurial intention at a confidence level of 95% (all p-values are less than or equal to 0.05). Results also show that social norms had positive and significant effect on personal attitudes and perceived behavioural control, with p-values of less than 0.01, hence H1a, H1b, H1c, H1d, H1e are all accepted.

Concerning standardized regression weight, Menard (2004) stated that standardized regression is also referred to as beta coefficient or beta weight is the result obtained from a regression analysis where the acquired data is standardized so that the variance of dependent and independent variables are equal to 1. In a multiple regression analysis, the standardization of the coefficient reflects which independent variable has a greater effect on the dependent variable (Greenland et al., 1996). In addition, the relationship between the constructs and the coefficient obtained from the structural model is considered as robust if coefficients are greater than 0.2 (Chin, 1998).

Personal attitudes had the highest standardized influence on entrepreneurial intention; where its standardized regression weight is 0.55; meaning that 1 standardization increase in personal attitudes will increase entrepreneurship intention be 0.55.

**Table 5. 24 Theory of Planned Behaviour hypotheses testing results**

Hypotheses	Paths	Standardized Regression Weight ( $\beta$ )	P- Value	Result
<b>H1a:</b> There is a significant positive influence of personal attitudes on students' entrepreneurial intentions.	Personal Attitudes $\longrightarrow$ Entrepreneurial Intention	0.55	***	Accepted
<b>H1b:</b> There is a significant positive influence of perceived behavioural control on students' entrepreneurial intention.	Perceived Behavioural Control $\longrightarrow$ Entrepreneurial Intention	0.15	0.05	Accepted
<b>H1c:</b> There is a significant positive influence of social norms on students' entrepreneurial intention.	Social Norms $\longrightarrow$ Entrepreneurial Intention	0.09	0.01	Accepted
<b>H1d:</b> There is a significant positive influence of social norms on students perceived behavioural control.	Social Norms $\longrightarrow$ Perceived Behavioural Control	0.19	***	Accepted
<b>H1e:</b> There is a significant positive influence of social norms on students' personal attitude.	Social Norms $\longrightarrow$ Personal Attitudes	0.36	***	Accepted

### 5.6.2.2 Perceived University Support

Hypothesis 2a stated that there is a significant positive influence of perceived university support on personal attitudes, the results in Table 5.23 shows that H2a is insignificant ( $p\text{-value} = 0.49 > 0.05$ ,  $\beta = -0.02$ ), H2c also shows an insignificant relation between perceived university support and entrepreneurial intention ( $p\text{-value} = 0.49 > 0.05$ ,  $\beta = 0.02$ ). In addition, it is found that there is a significant positive influence of perceived university support on perceived behavioural control of students ( $p\text{-value} = 0.03 < 0.05$ ), however the effect of university support on perceived behavioural

control is weak with a  $\beta = 0.08$ . And so, H2a, H2c are rejected and H2b is accepted (see Table 5.25).

**Table 5. 25: Perceived University Support hypotheses testing results**

Hypotheses	Paths	Standardized Regression Weight	P- Value	Result
<b>H2a:</b> There is a significant positive influence of perceived university support on students' personal attitude.	Perceived University Support $\rightarrow$ Personal Attitude	-0.02	0.49	Rejected
<b>H2b:</b> There is a significant positive influence of perceived university support on perceived behavioural control.	Perceived University Support $\rightarrow$ Perceived Behavioural Control	0.08	0.03	Accepted
<b>H2c:</b> There is a significant positive influence of perceived university support on students' entrepreneurial intention.	Perceived University Support $\rightarrow$ Entrepreneurial Intention	0.02	0.49	Rejected

### 5.6.2.3 Perceived Governmental Support

The relation between perceived governmental support is found to be insignificant with respect to the three dependent variables, namely personal attitudes, perceived behavioural control and entrepreneurial intention, by having all p-values  $> 0.05$ , which results in the rejection of H3<sub>a</sub>, H3<sub>b</sub> and H3 (see Table 526).



**Table 5. 26: Perceived Governmental Support hypotheses testing results**

Hypotheses	Paths	Standardized Regression Weight	P- Value	Result
<b>H3a:</b> There is a significant positive influence of perceived governmental support on personal attitude.	Perceived Governmental Support → Personal Attitude	-0.11	0.10	Rejected
<b>H3b:</b> There is a significant positive influence of perceived governmental support on perceived behavioural control.	Perceived Governmental Support → Perceived Behavioural Control	0.07	0.39	Rejected
<b>H3c:</b> There is a significant positive influence of perceived governmental support on students' entrepreneurial intention.	Perceived Governmental Support → Entrepreneurial Intention	-0.12	0.06	Rejected

#### 5.6.2.4 Perceived Environmental Support

The results presented in Table 5.27 explains the existence of a positive and significant influence between perceived environmental support and perceived behavioural control ( $p\text{-value} = 0.02 < 0.05$ ,  $\beta = 0.19$ ), and thus, hypothesis H4<sub>b</sub> is supported; standardized coefficient weight of 0.19 indicates that any unit increase in perceived environmental support will result on 0.19 increase in perceived behavioural control.

Whereas, hypothesis 4a is found to be insignificant ( $p\text{-value} = 0.5 > 0.05$ ,  $\beta = -0.05$ ), also Hypothesis 4<sub>c</sub> is found to be insignificant ( $p\text{-value} = 0.06 > 0.05$ ,  $\beta = 0.06$ ).

**Table 5. 27: Perceived Environmental Support hypotheses testing results**

Hypotheses	Paths	Standardized Regression Weight	P- Value	Result
<b>H4a:</b> There is a significant positive influence of perceived environmental support on personal attitude.	Perceived Environmental Support → Personal Attitude	-0.05	0.5	Rejected
<b>H4b:</b> There is a significant positive influence of perceived environmental support on perceived behavioural control.	Perceived Environmental Support → Perceived Behavioural Control	0.19	0.02	Accepted
<b>H4c:</b> There is a significant positive influence of perceived environmental support on students' entrepreneurial intention.	Perceived Environmental Support → Entrepreneurial Intention	0.06	0.06	Rejected

#### 5.6.2.5 Personality Traits

As shown in Table 5.28 Need for achievement was hypothesized to positively influence students' personal attitudes (H5a), perceived behavioural control (H5b) and entrepreneurial intention (H5c). Where, H5a and H5c were found to be insignificant as their probability value are 0.38 and 0.43 respectively which are greater than 0.05, and so need for achievement did not influence students' personal attitudes and entrepreneurial intention. A significant and strong relation was found between need for achievement and perceived behavioural control with standardize regression weigh of 0.94 and p-value <0.001)

Locus of control was also hypothesized to positively influence students' personal attitudes (H6a), perceived behavioural control (H6b) and entrepreneurial intention (H6c). It was found that H6a is accepted as Locus of Control significantly and positively influence students' personal attitudes (p-value <0.001,  $\beta$ = 0.44). Regarding H6b it was not supported because its standardized regression is negative ( $\beta$ = -0.81) meaning that no positive influence was found between locus of control and

perceived behavioural control). Moreover, H6c was also not supported ( $p\text{-value} = 0.25 > 0.05$ ,  $\beta = -0.22$ ).

H7a states that there is a significant positive influence of Risk Taking on students' personal attitudes, such relation is found to be insignificant ( $p\text{-value} = 0.38 > 0.05$ ,  $\beta = -0.01$ ). However, the relation between Risk Taking and perceived behavioural control (H7b) and between Risk Taking and students' entrepreneurial intention (H7c) are found to be significant where  $p\text{-values}$  are less than 0.05. Standardized regression weight between Risk Taking and perceived behavioural control is 0.45 and 0.24 between risk taking and entrepreneurial intention.

All hypotheses concerning innovativeness (H8a, H8b, H8c) are found to be insignificant. H8a hypothesise that there is a significant and positive influence of innovativeness on students' personal attitudes ( $p\text{-value} = 0.33 > 0.05$ ,  $\beta = 0.07$ ). H8b hypothesise that there is a significant and positive influence of innovativeness on students' perceived behavioural control ( $p\text{-value} = 0.5 > 0.05$ ,  $\beta = -0.08$ ). In addition, H8c hypothesise that there is a significant and positive influence of innovativeness on students' entrepreneurial intention ( $p\text{-value} = 0.3 > 0.05$ ,  $\beta = -0.08$ ).

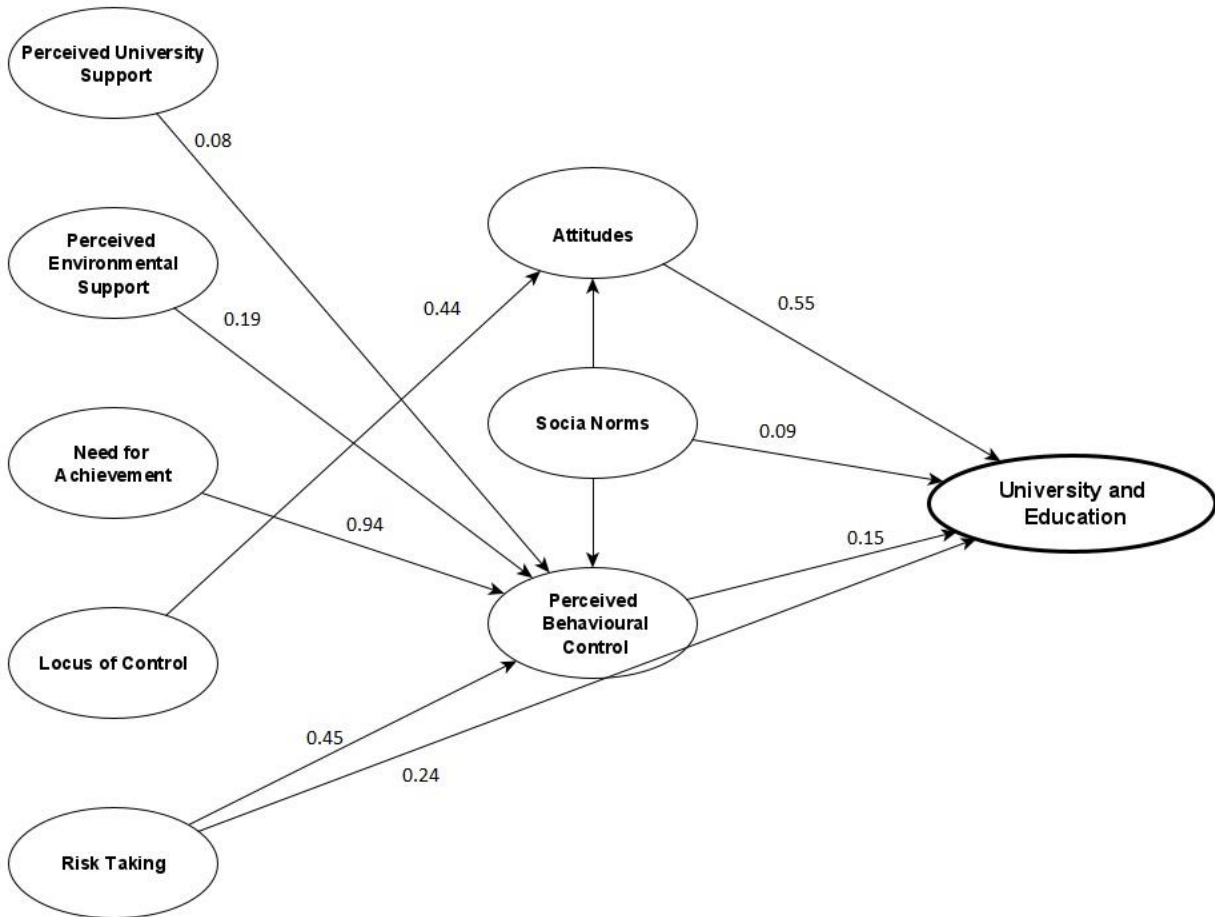
**Table 5. 28:** Hypotheses results concerning Personality Traits

Hypotheses	Paths	Standardized Regression Weight	P- Value	Result
<b>H5a:</b> There is a significant positive influence of need for achievement on students' personal attitude.	Need for Achievement → Personal Attitude	0.14	0.38	Rejected
<b>H5b:</b> There is a significant positive influence of need for achievement on students' perceived behavioural control.	Need for Achievement → Perceived Behavioural Control	0.94	***	Accepted
<b>H5c:</b> There is a significant positive influence of need for achievement on students' entrepreneurial intention.	Need for Achievement → Entrepreneurial Intention	0.18	0.43	Rejected
<b>H6a:</b> There is a significant positive influence of locus of control on students' personal attitude.	Locus of Control → Personal Attitude	0.44	***	Accepted
<b>H6b:</b> There is a significant positive influence of locus of control on students' perceived behavioural control.	Locus of Control → Perceived Behavioural Control	-0.81	0.00	Rejected
<b>H6c:</b> There is a significant positive influence of locus of control on students' entrepreneurial intention.	Locus of Control → Entrepreneurial Intention	-0.22	0.25	Rejected
<b>H7a:</b> There is a significant positive influence of risk taking on students' personal attitude.	Risk Taking → Personal Attitude	-0.07	0.38	Rejected
<b>H7b:</b> There is a significant positive influence of risk taking on students' perceived behavioural control.	Risk Taking → Perceived Behavioural Control	0.45	***	Accepted

<b>H7c:</b> There is a significant positive influence of risk taking on students' entrepreneurial intention.	Risk Taking → Entrepreneurial Intention	0.24	0.01	Accepted
<b>H8a:</b> There is a significant positive influence of innovativeness on students' personal attitude.	Innovativeness → Personal Attitude	0.07	0.33	Rejected
<b>H8b:</b> There is a significant positive influence of innovativeness on students' perceived behavioural control.	Innovativeness → Perceived Behavioural Control	-0.08	0.5	Rejected
<b>H8c:</b> There is a significant positive influence of innovativeness on students' entrepreneurial intention.	Innovativeness → Entrepreneurial Intention	-0.08	0.3	Rejected

## 5.7 Quantitative Data Analysis Summary

The first part of this chapter, which is concerned with the quantitative data analysis, analysed the data collected from Lebanese International University students and described their demographic profile and respondents' descriptive statistics. Skewness and Kurtosis values were obtained to check the normality of the data. In addition, this chapter aimed to test the proposed model of entrepreneurial intention, personal attitude, perceived behavioural control, social norms, personality traits, perceived university support, perceived environmental support and perceived governmental support. Structural equation modelling (SEM) was applied to test the validity and reliability of the constructs in the model. Regarding the testing of the model a two-step process was applied through SEM analysis. First confirmatory factor analysis was conducted to confirm the theoretical soundness of each construct, to develop the best fit model, some items were carefully deleted. Figure 5.2 shows the significant paths found from the results obtained from the quantitative data analysis, the figure shows the relation between depended and independent variables along with the standardized regression weigh of each path.



**Figure 5. 2: Results of SEM (only significant paths are reported)**

Key findings in the analysis are listed below:

- *There is a significant positive influence of **Locus of control** on **Attitudes**.*
- *There is a significant positive influence of **Need for achievement** on **Perceived Behavioural Control**.*
- *There is a significant positive influence of **Risk Taking** on **Perceived Behavioural Control**.*
- *There is a significant positive influence of **Perceived Environmental Support** on **Perceived Behavioural Control**.*
- *There is a significant positive influence of **Perceived University Support** on **Perceived Behavioural Control**.*
- *There is a significant positive influence of **Social Norms** on **Perceived Behavioural Control**.*
- *There is a significant positive influence of **Social Norms** on **Attitudes**.*
- *There is a significant positive influence of **Risk taking** on **Entrepreneurial Intention**.*
- *There is a significant positive influence of **Attitudes** on **Entrepreneurial Intention**.*
- *There is a significant positive influence of **Perceived Behavioural Control** on **Entrepreneurial Intention**.*
- *There is a significant positive influence **Social Norms** on **Entrepreneurial Intention**.*
- The highest standardized influence on **Entrepreneurial Intention** is for the construct **Attitudes**, with  $\lambda = 0.55$ .
- The indicator with highest standardized load for the construct **Need for achievement** is q34 “**I prefer hard work than easy work**”, with  $\lambda = 0.87$ .
- The indicator with highest standardized load for the construct **Locus of Control** is q38, “**My life is determined by my own acts**”, with  $\lambda = 0.72$ .
- The indicator with highest standardized load for the construct **Risk taking** is q41 “**I don't mind working in a high-risk work environment, even if it will not provide me with a stable income**”, with  $\lambda = 0.80$ .
- The indicator with highest standardized load for the construct **Innovativeness** is q44. **I am a creative person**, with  $\lambda = 0.84$ .

- The indicator with highest standardized load for the construct **Perceived university support** is **q49 “University/ School helped me to identify business opportunities”**, with  $\lambda = 0.83$ .
- The indicator with highest standardized load for the construct **Perceived Governmental support** is **q57 “Lebanese Government provides financial incentives for start-ups”**, with  $\lambda = 0.93$ .
- The indicator with highest standardized load for the construct **Perceived Environmental support** is **q61 “Infrastructure (electricity, internet, water) in Lebanon supports start-up companies”**, with  $\lambda = 0.78$ .
- The indicator with highest standardized load for the construct **Attitudes** is **q20 “Being an entrepreneur would give me satisfaction”**, with  $\lambda = 0.81$ .
- The indicator with highest standardized load for the construct **Social Norms** is **q27 “People that are important to me think I should start my career as an entrepreneur”**, with  $\lambda = 0.87$ .
- The indicator with highest standardized load for the construct **Perceived Behavioural Control** is **q32 “I know all the practical details of starting a business”**, with  $\lambda = 0.70$ .
- The indicator with highest standardized load for the construct **Entrepreneurial Intention** is **q15 “I will make every effort to start my own business”**, with  $\lambda = 0.88$ .



## **5.8 Qualitative Data Analysis**

### **5.8.1 Introduction**

The second part of this chapter aimed to collect qualitative data to help explain the quantitative data and add depth and richness to the research. Based on the results of the quantitative data analysis, interviews were arranged with several participants to obtain their perceptions about the available entrepreneurial support provided by the university, government and outlining environment, in order to better understand the factors affecting university students' intention towards entrepreneurial activity in Lebanon.

Semi structured interview was conducted with 12 interviewees, according to Patton (2015) semi-structured interviews are useful to reach critical and depth information, where it allows for the asking of new questions to uncover any topic.

### **5.8.2 Developing the interview guide**

An interview guide is a form of pre instrumentation, it is concerned with the subjects the interviewer aims to explore during the interview, it provides suggestions that may be used to carry out on answers (King, 2004). By previously defining the subjects to be explored the interviewing process of different participants become more comprehensive and systematic (Patton, 2002). The interview guide was based on the research objectives, literature review and the data collected from the questionnaire. The focus of the interview was on four main areas related to entrepreneurship- personal characteristics, university support, governmental support and environmental support. The guide was made up of broad questions that allows for the gathering of related data and for the purpose of obtaining information that were not enough gathered from the questionnaire distributed (Luna- Reyes and Adersen, 2003). Below are the main questions asked in the semi- structured interviews:

- 1) Some studies show that entrepreneurs have specific personal characteristics. Do you agree that such characteristics plays any role in students' decision to be entrepreneurs?
- 2) Entrepreneurship is based on creativity and innovation. How do you evaluate and assess it among students in Lebanon?

- 3) What is the current situation of entrepreneurship learning and support within higher education institutions in Lebanon?
- 4) How is the Lebanese government and policies affecting entrepreneurship? What support you think should be available from government to develop entrepreneurial activities in the country?
- 5) How do you evaluate the Lebanese infrastructure and how do you think it affects the intention of students to be entrepreneurs?
- 6) Do you think that access to finance is easy in Lebanon?
- 7) Lebanon faces political and economic instabilities; do you think that such situation does affect entrepreneurship in the country?

### **5.8.3 Qualitative data analysis**

Thematic data analysis was used to analyse the data obtained from interviews, it was then followed by a template analysis technique to facilitate the interpretation of information (King, 2004). Thematic analysis is an approach that helps in identifying, analysing and reporting of themes or patterns within the collected data (Braun and Clark, 2006). Ayres (2008, p.867) defines it as “a data reductions and analysis technique by which qualitative data are segmented, categorised, summarised and reconstructed in a way that captures the important concepts within a data set”.

The choice of thematic analysis comes from its flexibility, easy to do and for its ability to provide rich description of data (Braun and Clarke, 2006). After finishing the interviews, the researcher transcribed each interview verbatim. Transcripts were left in their original language to prevent mislead of meanings. To ensure a comfortable environment during interview and to collect the maximum amount of information, the choice of interview language was left to respondents, and so in most cases Arabic was chosen. After finishing of analysis, the Arabic quotes were translated into English.

The researcher used categorization, codes and themes to analyse respondents' answers for the questions. Coding is the process of organizing data depending on their characteristics (Strauss, 1987). Braun and Clarke (2006) recognized 6 steps for thematic analysis- familiarizing with data, generating initial codes, searching of themes, reviewing themes, refining and naming themes, writing of report.

Data cleaning was applied for the transcripts, as not the whole data gathered from qualitative data are of added value, that is why the researcher need to reduce data to concentrate on what is of importance for the study. Hence, the researcher needs to examine the data collected from interview (raw data) to find out what is significant and transform it to a format that can answer the research question (Miles and Huberman, 2013; Krathwohl 1998). Themes can be obtained from the study research questions or from the collected data (Taylor- Powell and Renner, 2003). Categories in this study are the same as in the quantitative data analysis, since that in a mixed method design quantitative and qualitative data are merged to obtain a comprehensive analysis of the research purpose (Creswell, 2014). Findings are categorized under the following titles:

- Personal Characteristics
- Education Support.
- Governmental Support
- Environmental Support

Interviews lasted between 25 and 50 minutes. The details of the interviews and participants are presented in Table 5.29, interviewees were coded.

**Table 5. 29: Interviewed stakeholders**

<b>Stakeholder Group</b>	<b>Participant</b>	<b>Mode of Interview</b>	<b>Duration of Interview</b>
<b>Business Faculty</b>	BF1	Face to Face	40 minutes
<b>Business Faculty</b>	BF2	Face to Face	32 minutes
<b>Business Faculty</b>	BF3	Face to Face	45 minutes
<b>Entrepreneurship Practitioner</b>	EP1	Face to Face	28 minutes
<b>Entrepreneurship Practitioner</b>	EP2	Face to Face	35 minutes
<b>Economist</b>	EC1	Skype	35 minutes
<b>Start-up Consultant</b>	SC1	Face to Face	50 minutes
<b>Business Student</b>	BS1	Face to Face	25 minutes
<b>Business Student</b>	BS2	Face to Face	32 minutes
<b>Business Student</b>	BS3	Face to Face	36 minutes
<b>Entrepreneur in Lebanon</b>	ENT1	Skype	30 minutes
<b>Entrepreneur outside Lebanon</b>	ENT2	Skype	25 minutes

### 5.8.4 Findings of qualitative analysis:

The below table 5.30 shows the findings on the data collected from interviews. Illustrated themes are supported with extracts from interview transcripts.

**Table 5.30: Template analysis of interviews**

Theme	Quotes
<b>Category: Personality Traits</b>	
<b>Entrepreneurs are different</b>	From my experience in interacting with students, I have observed prominent personal characteristics that differentiates them from individuals that are not willing to be entrepreneurs. Students that wish to be an entrepreneur is seen to be more active, have positive thoughts and are enthusiastic to learn new ideas. EP1
	It is not easy to be an entrepreneur, entrepreneurs are different, they have special traits that puts them in the front of the line. BF2
	In general, in order to succeed in such a competitive market, an individual must have a certain mind set, however, to succeed as an entrepreneur this mind set must be of extra ordinary strength. EC1
	Individuals who concentrate on difficulties and obstacles are individuals who tend to give up easily, and this does not work with entrepreneurship... entrepreneurship is a hard and long process and only individuals that believe that they can control what is happening with them is capable of seeing the attractive side of entrepreneurship. EP2
	Usually individuals that are in search for achieving something meaningful in their lives are the ones that consider being entrepreneur....I usually hear individuals complaining being working for someone else because they believe that they can work for themselves and achieve something. SC1

	When I compare myself to people around me, specially my friends I see a big difference in the way I think... I always want to achieve new things, risk for me is an opportunity and creativity is what differentiates me. ENT2
	When I talk with my colleagues concerning future plans and when I compare our goals, I see that my way of thinking is different...my dreams are big... I do not believe there is anything that will stop me from opening my own business.... when I talk with my colleagues I only get negative vibes. BS2
	From my experience, I observed that individuals that can deal with uncertainties are usually the ones that feel they are confidence in being an entrepreneur. BF3
<b>Absence of innovators</b>	Lebanon lost and is still losing its talented youth individuals, specially university graduates.... brain drain is a main issue in the country. BF2
	Out of experience I found it is really hard to be creative in Lebanon, due to the daily pressure that prohibits an individual from being innovative...In Lebanon we still do not have electricity 24/7, the internet is slow and expensive. ET2
	The structure of most Lebanese universities does no motivate students towards entrepreneurial activities...it also constrains technology development and does not support collaborations between the university market needs. BF3
	In my profession I mostly get people asking for help in opening border line business ideas, things that have been done many times. very rarely have I been asked about a new idea or something innovative. SC1
	I want to open my own business, but what makes me afraid is that I don't have a lot of new and creative ideas that will make my business special and competitive.... The problem is that when I get a new idea, I don't know how to transform it into reality. BS3
	Lebanon has the accurate ingredients for being innovative .... however, what prohibits young from being innovative is that the Lebanese market is very small. BF1
	During training, students usually do not come with a new and innovative idea, but what we recognized is that they are open to new ideas.... perhaps, when we present them with new options, they do not refuse to try. EP2

	The indication for innovation is very weak in Lebanon, we do not often see new products and technologies.... Most people think that innovation is only the improvement or diversification of a current product; it's not about having ten different kinds of tea. EC1
<b>Category: Educational Support</b>	
<b>Early Age</b>	Entrepreneur skills are like muscles that should be exercised along the span of a human educational life for it to be strong enough to be used later in practical life. BF2
	I believe entrepreneurial skills should be taught at a young age of students. EP1
	I don't recall ever taking any classes back in school or any courses about 'how to open your own business', so it is hard for me to imagine myself being an entrepreneur. BS1
	If parents could be taught of the benefits of being an entrepreneur, they might in turn be a great and direct influence on their own children. Monkey see monkey do (laughter). EP2
	The government needs to early invest in infants... It is never too early to start building young's skills towards entrepreneurship... Such investment will lead to future economic development. EC1
<b>Practical Orientation</b>	Students are taught a lot of theories, but little is applied. BF1
	I wish I knew the same skills then as I do know now about opening a business, things would have been much easier, I do not remember I learned real information in the university on how to be entrepreneur or simply how to open a small business. ENT1
	Books and theories can get you so far, but only actual skills will make you go all the way to the end. EP2
	We are given case studies, but what we need is real case scenarios in our country not in other countries. BS1

	Providing training to students will make them more aware of the business environment. It teaches them how to discover opportunities and how to take the maximum benefit of available support. ENT1
	I do not think there is any problem concerning the theoretical education of entrepreneurship. What students need is more practical activities such as inviting entrepreneurial mentors to train students, such activity is of great interest to students and are very effective. BF1
<b>University initiatives</b>	It is the time for Lebanese universities to start focusing on the formation of business incubation centres... such centres positively affect the generation of new and innovative ideas and in some cases, it leads to the starting of new businesses even before graduation. BF3
	Entrepreneurship education is still new in Lebanon that is why we still see that most universities in the country are not taking entrepreneurship seriously, that is why we are not noticing a big difference in students' mindsets towards entrepreneurship. EP1
	The structure of most Lebanese universities does not motivate students towards entrepreneurial activities...it also constrains technology development and does not support collaborations between the university and market needs...Universities need to start taking initiatives to change such situation. SC1
	We tried to enter different universities in Lebanon with the purpose of adjusting their curriculum so that it will be updated to what the market need and to the concept of entrepreneurship...but we got shocked for the high number of universities that refused such changes... the ones that accepted at the beginning did not cooperate with us mainly because due to the structure of the universities any change in curriculum will take a long time. EP2
	As I studied in Lebanon and in Europe, I think there is a lot for the Lebanese universities to do, there is a huge difference between countries. Lebanese universities need to seriously think about entrepreneurship and put it as a priority in its agenda... The first step may be by starting entrepreneurship centres. ENT2

	Few university business incubations exist in the country and we see little presence of mentoring initiatives that facilitate innovative activities. BF1
<b>Category: Governmental Support</b>	
<b>Simplified and supportive regulations</b>	University graduates are not experienced in opening businesses, adding to this the laws in Lebanon are somehow complicated and time consuming and this work as a barrier for the development of entrepreneurship. SC1
	For encouraging entrepreneurship, it is essential to reduce the fees related to business registration, moreover strict rules concerning rent rates should be monitored by the government as it is considered high in the country. BF2
	To motivate Lebanese in general and its students in specifics the first step the government need to do is to simplify the regulations for taxation and the process required for the registration of business... it is not only the process but also the costs related to it must be reduced.... the government is corrupted and so a higher cost exists in the registration. EP1
	From my experience I believe the business laws and regulations are outdated in Lebanon and it is a major constraint on entrepreneurship. ENT2
	The Lebanese market is small and so the government needs to put rules that gets students into international market, moreover the government needs to protect the local market as we see that it imports a huge number of products that are produced in the country. BF1
	I am about to graduate, and I do not know the steps I should take to open a business... I do not know where I should go or with whom should I talk...I wish the government to be more transparent about those issues. BS2
	As I heard from people around me, I think that starting a business in Lebanon is very hard. BS3
	Perceiving the regulations and taxes related to business less complicated will affect the students' intention positively. BF3
<b>Backbone for motivating other parties</b>	The government has the power to affect the entrepreneurial ecosystem, it all starts from the government which can put developed and motivated policies. EC1



	Currently I do not see any strategic plans or a clear vision from the government to support entrepreneurship or even SMEs in the country, that is why I believe the students do not perceive the environment in Lebanon as attracted for entrepreneurship. BS2
	The solution for developing entrepreneurship in the country comes from the Lebanese government adoption of the notion that entrepreneurship is an important factor for the realization of economic growth...starting from here the government will put all the necessary rules, policies and regulations that will support such ecosystem. ENT1
	There exists a very weak link between governmental and non-governmental institutions and programs that targets entrepreneurship, which leads to suboptimal results. BF3
	The government represented by the Ministry of Education and Higher Education must take the decision in making entrepreneurship education mandatory in all universities. With these step universities will be more concerned with the importance of entrepreneurship. BF2
	Corruption, corruption, corruption.... we are getting a lot of NGOs opened in Lebanon with international funding to support youth entrepreneurship but little is being done, the government need to better monitor what is happening. EP2
<b>Category: Environmental Support</b>	
<b>Access to finance</b>	A major challenge that entrepreneurs face is the access to capital and investment. Governments can assist in this area by urging banks to work with start-ups and small business by providing loans or investment. BF2
	For me coming up with a business idea is the easy part. What I find difficult is funding the business idea enough for it to work. The government should try in a way or another to help in providing capital to start-up business ideas or entrepreneurs. BS2
	There are several international and local organizations that try to support entrepreneurship in Lebanon from different ways, where funding is a part of

	such support. However, the problem is that not all funding is reaching youth.... Lebanon faces a lot of corruption BF1
	Financing in Lebanon is hard, individuals usually take funds from their parents, as a lot of collaterals is requested in case of borrowing and usually young do not have it. ENT1
	some organizations in Lebanon are providing financial aid to youth who has an entrepreneurial idea, however, providing the fund alone is not the ultimate solution, funds should be allocated to provide them with training programmes so that they can acquire the necessary skills and experience to effectively use the financial aid provided for them. EP1
	People do see and analyse, a good step to encourage entrepreneurship in Lebanon is by the government taking real initiatives to facilitate access to low-cost finance, such step will be a signal that business creation is important. .... When I say real, I mean a step that will be applied to help people and not another way to steal money. EC1
<b>Infrastructure</b>	How can we efficiently plan and apply our ideas, if for today we do not have 24/7 electricity? internet access is very expensive and if we still don't have good, safe and reliable transportation? BS1
	The absence of electricity directly affects the number of entrepreneurships in the country, as electricity is not always available individuals need to find an alternative to it, which is usually expensive such as purchasing a generator. EP1
	Lebanon faces high costs of utilities and infrastructure, which makes local businesses uncompetitive. This situation is established as one of the most important obstacles that faces Lebanese market. SC1
	Back to the time I was in Lebanon one of the main obstacles I faced was regarding the poor and expensive infrastructure in the country. ENT2
	Infrastructure in Lebanon is very expensive, which affects the cost of starting up a company. EC1
	In Lebanon, we have a "double whammy": We have total control of the internet by the government, but the government is not managing it for the benefit of its people. BS2

<b>Political and Economic Instability</b>	<p>Entrepreneurship is directly related to risk, and thus working in a politically unstable country makes the risk much higher, and so negatively affects the intention of students in taking the risk of being an entrepreneur. BF3</p>
	<p>There is a very thin line between being courageous and being crazy. This line is drawn with a very thick marker for people living in Lebanon because the risk for them to open any kind of business in such a political chaos would be a recipe for failure. ENT2</p>
	<p>The political and economic instability is at its highest peak; it makes it nearly impossible for one to even think about venturing into a new idea or a new untapped market segment. The risk is almost always higher than the foreseen outcome. SC1</p>
	<p>Lebanon is a relatively small country. For us to assume that a new business idea that would take so much hard work and time to grow would pay off in the long run, would be a far-fetched train of thought. ....Seeing that Lebanon is considered a small country, any negative changes that occur in neighbouring countries can and does have a great negative impact on us. The instability that is currently happening in other countries around Lebanon makes it much harder for businesses inside to expand. BS3</p>
	<p>It is very hard to stand out from the crowd in Lebanon. This is due to many elements but if I would to sum it up in one word, it is the environment that makes it difficult to be innovative or unique in a certain way let alone be an entrepreneur. BS1</p>
	<p>The instable political and economic situation that Lebanon is facing makes it hard to retain youth talent. A lot of work is done with students to understand their needs and concerns, in order to motivate them to stay in Lebanon and positively contribute to the economy. BF2</p>

## **5.9 Credibility of interview results**

Credibility is essential in research in order to reach accurate and reliable presentation and narration of respondents' answers and comments (Baxter and Eyles, 1997). For this reason, the researcher of this study sent electronic copies of the finding themes and results interpretations to interviewees, so that they provide confirmation on the results. The majority (9 out of 12) provided the confirmation on results on spot, however, the others provided it after a second mail reminder. No objections were sent by any participant, and everything written was approved as it is.

## **5.10 Conclusion**

This chapter aimed to reveal the findings obtained from quantitative and qualitative data analysis. It started by presenting quantitative data from the distributed questionnaire. Skewness and Kurtosis values were obtained and results suggested that acquired data is within the normality range, in addition a linear relationship was found between students' entrepreneurial intention (dependent variable) and all independent variables in the study; namely attitudes, social norms perceived behavioural control, personal characteristics, perceived university support, governmental support and environmental support. Descriptive statistics were applied to the survey using means, standard deviation and frequency distribution of response. Reliability through cronbach's alpha and convergent validity through confirmatory factor analysis (CFA) to evaluate the adequacy of the measurement model, through this process some indicators were carefully deleted to reach the final best fit model. Moreover, this chapter tested the study model and tested hypotheses through Structural Equation Modelling analysis (SEM).

The second part of the chapter presented the findings of the qualitative data from the semi-structured interviews, which provided in- depth insight into entrepreneurship in Lebanon and the factors affecting students' intention towards it. Qualitative data was structure and analysed under the same categories found in the quantitative data and 10 themes emerged from participants' answers, which were enriched by informants' quotations. Qualitative findings expanded the findings of the questionnaire data and completed the sequential explanatory mixed method design applied in this study.

The next chapter triangulated the findings of the quantitative and qualitative data, which will serve as a foundation to build a framework to encourage students' entrepreneurial activity in Lebanon and reaching the study's final conclusion and implications.

## **CHAPTER SIX: DISCUSSION**

### **6.1 Introduction**

The aim of this research is to build a framework to encourage students' entrepreneurial activity in Lebanon, through understanding factors that are currently affecting their intention towards such activity. This chapter triangulates the findings of the questionnaire distributed to students, conducted interviews (chapter four), and the secondary data found in the literature review (chapter two). Chapter six reviews the research objectives, then discuss the antecedents of entrepreneurial intention.

### **6.2 Research Stages**

After setting the research hypotheses, the first phase of the research involved quantitative self-administered questionnaire, which was distributed to business students in the largest private university in Lebanon (Lebanese International University) and it was distributed across nine different areas in the country. The initial sample included 3,154 students and the obtained response rate was 34.9%. Based on the results obtained from the questionnaire the second phase was conducting semi structured interviews with 12 individuals to help explain and obtain a deeper understanding of the quantitative results and gather their opinion regarding the entrepreneurship ecosystem in Lebanon and the factor's affecting students' intention in the country. Table 6.1 shows the research hypotheses and how questionnaire and interview questions are linked to each hypothesis. The below sections discusses the results obtained from the triangulation of the data gathered.

**Table 6. 1: Research Hypotheses, Questionnaire and Interview Questions**

Hypothesis	Questionnaire Questions	Interview Questions
<b><i>“Entrepreneurial Intention”</i></b>	My professional goal is to be an entrepreneur.	
	I will make every effort to start my own business.	
	I am seriously thinking of starting my business.	
	I am ready to do anything to be an entrepreneur.	
	I have the intention to start my business upon graduation from university.	
	I have the intention to start my business in the next 5 years of graduation.	
<b><i>“Attitude towards Entrepreneurship”</i></b> <b>H1a: There is a significant positive influence of personal attitudes on students’ entrepreneurial intentions.</b>	Being an entrepreneur would give me satisfaction	
	Being an entrepreneur implies more advantage than disadvantage to me.	
	A career as an entrepreneur is attractive to me.	
	I would like to be an entrepreneur rather than employed	
	If I have the opportunity and resources, I would love to start a business.	
<b><i>“Perceived Behavioural Control”</i></b> <b>H1b: There is a significant positive influence of perceived behavioural control on students’ entrepreneurial intention.</b>	If I was an entrepreneur, I would have full control of my business.	
	For me it is very easy to open a business.	
	I am confident that if I start a business, failure of chances would be low.	
	I know all the practical details to starting a business.	
<b><i>“Social Norms”</i></b> <b>H1c: There is a significant positive influence of social norms on students’ entrepreneurial intention.</b> <b>H1d: There is a significant positive influence of social norms on students perceived behavioural control.</b> <b>H1e: There is a significant positive influence of social norms on students’ personal attitude.</b>	My closest family members think I should start my career as an entrepreneur.	
	My closest friends think I should start my career as an entrepreneur.	
	People that are important to me think I should start my career as an entrepreneur.	
	I do care about the opinion of others I decide to be an entrepreneur.	
<b><i>“Perceived University Support”</i></b>	My university/ school provided me with the knowledge and information required to start a business.	<b><i>What is the current situation of entrepreneurship learning and</i></b>

<b>H2a: There is a significant positive influence of perceived university support on personal attitudes.</b> <b>H2b: There is a significant positive influence of perceived university support on perceived behavioural control.</b> <b>H2c: There is a significant positive influence of perceived university support on students' entrepreneurial intention.</b>	My university/ school encourages me to develop creative ideas for being an entrepreneur.	<i>support within higher education institutions in Lebanon?</i>
	During classes teachers provide students with real business examples.	
	University/ school helped me to identify business opportunities.	
	University/ school provided me with information regarding start-up centres in Lebanon.	
	University/ school taught me how to prepare a feasibility study.	
<b>"Perceived Government Support"</b> <b>H3a: There is a significant positive influence of perceived governmental support on personal attitudes.</b> <b>H3b: There is a significant positive influence of perceived governmental support on perceived behavioural control.</b> <b>H3c: There is a significant positive influence of perceived governmental support on students' entrepreneurial intention.</b>	University/school often prepares workshops, seminars and training regarding entrepreneurship.	<i>How is the Lebanese government and policies affecting entrepreneurship?</i>  <i>What support you think should be available from government to develop entrepreneurial activities in the country?</i>
	Lebanese government supports youth entrepreneurship.	
	Lebanese government supports creation of new business.	
	Procedures to start a business is easy in Lebanon.	
	Lebanese government provides tax facilities for start-ups.	
<b>"Perceived Environmental Support"</b> <b>H4a: There is a significant positive influence of perceived environmental support on personal attitudes.</b> <b>H4b: There is a significant positive influence of perceived environmental support on perceived behavioural control.</b> <b>H4c: There is a significant positive influence of perceived environmental support on students' entrepreneurial intention.</b>	Lebanese government provides financial incentives for start-ups.	<i>How do you evaluate the Lebanese infrastructure and how do you think it affects the intention of students to be entrepreneurs?</i>  <i>Do you think that access to finance is easy in Lebanon?</i>  <i>Lebanon faces political and economic instabilities; do you think that such situation does</i>
	In the Lebanese society having own business is better than being employed.	
	Lebanese economy provides many opportunities for entrepreneurs.	
	It is easy to obtain loans in Lebanon.	
	Infrastructure (electricity, internet, water...) in Lebanon supports start-up companies.	
	The political instability in Lebanon does not affect the decision of opening a business.	



		<i>affect entrepreneurship in the country?</i>
<p><b>“Need for Achievement”</b></p> <p><b>H5a:</b> There is a significant positive influence of need for achievement on personal attitudes.</p> <p><b>H5b:</b> There is a significant positive influence of need for achievement on perceived behavioural control.</p> <p><b>H5c:</b> There is a significant positive influence of need for achievement on entrepreneurial intention.</p>	<p>I always try to perform better than others.</p> <p>I prefer hard work than easy work.</p> <p>I have no fear of failure.</p> <p>I do not mind working for free to get the experience I need.</p>	<p><i>Some studies show that entrepreneurs have specific personal characteristics. Do you agree that such characteristics plays any role in students’ decision to be entrepreneurs?</i></p> <p><i>Entrepreneurship is based on creativity and innovation. How do you evaluate and assess it among students in Lebanon?</i></p>
<p><b>“Locus of Control”</b></p> <p><b>H6a:</b> There is a significant and positive influence of locus of control on personal attitudes.</p> <p><b>H6b:</b> There is a significant and positive influence of locus of control on perceived behavioural control.</p> <p><b>H6c:</b> There is a significant and positive influence of locus of control on entrepreneurial intentions.</p>	<p>Business success is not due to luck.</p> <p>My life is determined by my own acts.</p> <p>I do not give up when I fail in a task,</p>	
<p><b>“Propensity to take risk”</b></p> <p><b>H7a:</b> There is a significant positive influence of risk-taking propensity on personal attitudes.</p> <p><b>H7b:</b> There is a significant positive influence of risk-taking propensity on perceived behavioural control.</p> <p><b>H7c:</b> There is a significant positive influence of risk-taking propensity on entrepreneurial intention.</p>	<p>Risk of failure is not a main concern for me.</p> <p>I don’t mind working in a high-risk work environment, even if it will not provide me with a stable income</p> <p>One should start a business even if there is a chance of risk</p>	
<p><b>“Innovativeness”</b></p> <p><b>H8a:</b> There is a significant positive influence of innovativeness on personal attitudes.</p>	<p>I often surprise people with new ideas.</p> <p>I am a creative person.</p> <p>People often ask me for help in creative activities.</p>	

<p><b>H8b: There is a significant positive influence of innovativeness on perceived behavioural control.</b></p> <p><b>H8c: There is a significant positive influence of innovativeness on entrepreneurial intention.</b></p>		
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### **6.3 Representation of questionnaire data**

The collected questionnaire data statistically represents the population of the study. The questionnaire was completed proportionately between genders; 50.6% of respondents were females and 49.91% were male. Lebanon has an equal number of males and females; worldometers show that sex ratio in Lebanon (males to females) is 1.01. Respondents from questionnaire came almost equally between nine different regions. Around 29.6% of respondents were from the capital which includes Beirut and Mount Lebanon area, 27.3% came from the Bekaa region which includes both cities Khyara and Rayak, 27.1% from the south which included Saida and Nabatieh, in addition to 16.9% from the north which consist of Tripoli and Akkar. Furthermore, data acquired from respondents show equality in their previous enrolment in high school, between 50.2% were enrolled in private school and 49.8% from public school. In addition, the collected data showed that most students (72.4%) have a monthly family income of less than \$2,000 (41.5% between \$501 and \$1,000 and 30.9% between \$1,001 and \$2,000). Close results were obtained in GEM (2018) adult population surveys, where it was found that 76% of household income in Lebanon is less than \$1,800.

### **6.4 Discussion of students' entrepreneurial intention and its antecedents**

With global awareness on the importance of entrepreneurship; policymakers and practitioners are paying higher attention to the promotion of entrepreneurial attitudes. In fact, researches are focusing on the factors that encourage individuals towards entrepreneurial activities for the purpose of accelerating the process and number of start-ups and innovation to reach economic development. In this section the researcher discusses students' inclinations towards entrepreneurial activities in Lebanon, it also discusses factors found to be influencing Lebanese students' intention

towards entrepreneurship along with the interviews conducted with related stakeholders, such results are integrated with the available literature review.

#### **6.4.1 Entrepreneurial Intention**

Entrepreneurial intention of students was measured using 5 points Likert scale, students rated their agreements or disagreement with the listed statements. Overall students expressed a high “willingness to make every effort to start a new business” (mean=4.19) and “readiness to do anything to be an entrepreneur” (4.18). Moreover, most students viewed “becoming an entrepreneur as their professional goal” (4.05) and “seriously thinking of starting a business” (3.9). Regarding the duration of starting their own business lower rates was noticed, a mean of (3.84) was found regarding students “willingness to start business in the next 5 years of graduation” and (3.68) was the mean as the intention of students to start their business upon graduation of university. Such results show that students under study have a high inclination towards entrepreneurship. The lower score found in the timing of being an entrepreneur comes with the high percentage found regarding the number of students who pretend to continue postgraduate studies upon graduation (37.9%).

#### **6.4.2 Theory of Planned Behaviour Constructs**

The Theory of Planned Behaviour (TPB) by Ajzen (1991) was applied in this research to investigate the entrepreneurial intention of university students in Lebanon. This theory is widely used in explaining human intention towards entrepreneurship (Buli and Yesuf, 2015; Soomro and Shah 2015; Bae et al., 2014; Kautonen, et al., 2013; Liñán, 2008). The applicability of TPB to the context of Lebanon has received empirical support. Results presented in chapter four reveals that Ajzen’s model fits perfectly to explain entrepreneurial intentions of students. The three antecedents of TPB; namely attitudes towards entrepreneurship, perceived behavioural control and social norms are found to significantly influence entrepreneurial intention. Results found provides an additional support for the current literature that intention would be formed based on the three antecedents (Kautonen et al., 2013; Dugassa, 2012; Stone et al., 2010; Fayolle et al., 2003; Kolvereid and Isaksen, 2006; Autio et al., 2001; Souitaris et al., 2007; Luthje and Franke, 2003). This implies that when students perceive entrepreneurship as attractive and desirable and they believe that it is an easy process, and when students find support from people close to them, they

will have a higher intention to be entrepreneurs. Iakovleva *et al.* (2011) provided evidence regarding the applicability of the TPB both in developing countries (Brazil, Mexico, Romania, Russia and Ukraine) and developed countries (Australia, Canada, The Czech Republic, France, Germany, Norway, Spain and The Netherlands). They found that personal attitude, subjective norms and perceived behavioural control explain 59 per cent of the variance in intention in developed countries and 62 per cent in developing countries. Attitudes towards entrepreneurship was found to have a positive and significant relationship with entrepreneurial intention of Lebanese university students, and it was found to have the strongest predictor of entrepreneurial intention, which is in accordance with studies conducted by Rueda *et al.*, (2015); Matlay and Hussain (2012); Moriano *et al.*, (2011); Dohse and Walter, (2010); Linan and Chen (2009); Van Gelderen *et al.*, (2008); Frank *et al.*, (2007); Luthje and Franke (2003); Autio *et al.*, (2001). Accordingly, if Lebanese university students perceive entrepreneurship as an attractive option, it will strongly enhance their intention towards it.

Perceived behavioural control is the second significant predictor of students' entrepreneurial intention (EI) in Lebanon; it refers to the confidence students have in performing entrepreneurial activity. Based on the findings of this study; perceived behavioural control has a positive relationship with entrepreneurial intention, which is consistent with previous research findings (Rueda *et al.*, 2015; Matlay *et al.*, 2012; Linan and Chen 2009; Soutaris *et al.*, 2007; Autio *et al.*, 2001). Hence, if students perceive the process of becoming an entrepreneur as easy, they will be more motivated towards it. Nevertheless, results showed that PBC is a moderate to low predictor of Lebanese students EI with a standardized regression weight of 0.15. Such results might be due to the fact that Lebanese students are not enough prepared with the required and needed skills to boost their confidence regarding their future success as being entrepreneurs, this could be explained by that only 29.8% of the questionnaire respondents have attended entrepreneurship course/ training.

Consistent with previous studies, Lebanese students do not seem to be directly influenced by what the society around them thinks (Kautonen *et al.*, 2015; Matlay *et al.*, 2012; Iqbal *et al.*, 2012; Stone *et al.*, 2010; Souitaris *et al.*, 2007; Armitage and Connor, 2001; Autio *et al.*, 2001; Krueger *et al.*, 2000), where social norms made the weakest contribution on entrepreneurial intention, standard regression weight was 0.09. However, this finding contradicts some studies (Moriano *et al.*, 2006;

Kristiansen and Indarti 2004; Ajzen 2001; Begley and Tan 2001) who concluded that social norms have stronger effects on entrepreneurial intentions in collectivistic countries, such as Lebanon (Ayyash- Abdo, 2001). In contrast Nishimura and Tristan (2011) have not found any correlation between social norms and entrepreneurial intention. This study also emphasize that social norms indirectly affect entrepreneurial intention through a positive and significant influence on attitudes towards entrepreneurship and perceived behavioural control, such finding is also consistent with previous studies (Susetyo and Lestari, 2014; Linan, 2008; Linan et al., 2011).

#### **6.4.3 Personal Characteristics**

In order to cultivate an entrepreneurial culture, it is important to understand the presence of entrepreneurial characteristics among individuals (Habaragoda, 2013). Personal characteristics affects the intention and behaviours of individuals towards entrepreneurship (Antoncic et al., 2015; Rauch and Frese, 2007; Shaver and Scott 1991). Some studies suggest that individuals choose their jobs based on their characteristic need and comfort (Wang et. al., 2011; Rauch, 2007; Zhao and Seibert, 2006). Differences exist between individuals, as they differ in abilities, personality and way of learning (Brandstatter 2011; Tajeddini and Mueller, 2008). Relating to entrepreneurship, we may find individuals proceeding with an entrepreneurship opportunity and others may prefer not to (Caliendo et al., 2015; Shinnar et al., 2012; Shane, 2003; Shane and Venkataranan, 2000; Kolvereid, 1996). Supporting this argument EP1 commented:

*“...from my experience in interacting with students, I have observed prominent personal characteristics that differentiates potential entrepreneurs from individuals that are not willing to be entrepreneurs. Students that wish to be an entrepreneur are seen to be more active, have positive thoughts and are enthusiastic to learn new ideas”.*

While expressing her own thoughts BS2 mentioned that:

*“when I talk with my colleagues concerning future plans and when I compare our goals, I see that my way of thinking is different... my dreams are big.... I do not believe there is anything that will stop me from opening my own business .... When I talk with my colleagues I only get negative vibes”.*

The data shows a significant relationship between some personality traits and entrepreneurial intention and its antecedents, such results are consistent with previous studies (RosiqueBlasco et al., 2018; Zampetakis, 2008; Florin et al., 2007; Davidson, 1995). Specifically, this research studied if students' need for achievement, locus of control, risk taking, and innovativeness directly affects their entrepreneurial intention or indirectly affects it through attitudes towards entrepreneurship and perceived behavioural control.

Out of four personality traits considered in this study, only locus of control was found to be related to attitudes towards entrepreneurship. Internal locus of control is the insight individuals have regarding their ability to control events in their lives. A significant relation between locus of control and attitudes, means that students under this study perceived themselves as capable of controlling events in their lives, which is not controlled by luck, thus, they believe entrepreneurship is an attractive choice. According to several researchers' individuals with internal locus of control are more likely to become entrepreneur (Verheul et al., 2012; Rauch and Frese, 2007; Luethje and Franke, 2003), as they are more likely to perceive attitudes towards entrepreneurship as positive (Luthje and Franke, 2003; Robinson et al., 1991). This concept was mentioned by BS2:

*"I think that to succeed in the business world, one needs to work hard because by working hard one can determine his own destiny".*

Additionally, EP2 elaborated that:

*"Individuals who concentrate on difficulties and obstacles are individuals who tend to give up easily, and this does not work with entrepreneurship... entrepreneurship is a hard and long process and only individuals that believe that they can control what is happening with them is capable of seeing the attractive side of entrepreneurship".*

In contrast, Karimi et al., (2015) did not conclude that students with high locus of control perceive the process of being entrepreneur as an easy task. Propensity to take risk and need for achievement were found to have a significant relationship with perceived behavioural control. Propensity to take risk is the process of taking actions regardless of its unknown outcomes (Jackson 1994; Jong et al., 2015), it is one's willingness to take opportunities that involves uncertainty (Zhao et al., 2010). Such personality trait is proved to be an antecedent of perceived behavioural control in this

study, which means that students with high propensity risk perceive themselves as more capable of performing an entrepreneurial behaviour and they are more willing to get involved in difficult tasks (Zhao et al., 2005). Risk taking propensity is one of the most important elements of entrepreneurial personality in this study, as it is the only trait found to be significantly and directly affecting entrepreneurial intention of students, such result is in unison with other studies such as Gurel et al., (2010); Rauch and Frese, (2007); Stewart and Roth (2001).

The result found, contradicts other findings that showed that risk taking affects attitudes (Do Paço et al., 2011; Bygrave, 1989;). As BF3 narrated:

*“After dealing with a number of students, I observed that individuals that are capable of dealing with uncertainties are usually the ones that feel they are confidence and attracted towards being an entrepreneur”.*

In illustrating why students in this study tend to have a high propensity towards risk, EC1 elaborated that:

*“Lebanese are used to live in uncertainty, the country is always in instability, that is why I do not think that the majority of Lebanese in general or students in specific, have problems dealing with risks that raise from an entrepreneurial activity”.*

Furthermore, need for achievement is an important trait in entrepreneurs; individuals with high need for achievements seek towards important accomplishments and self- development (McClelland, 1961); such individuals usually perceive themselves as capable of starting an enterprise, because they seek challenging activities (Dohse and Walter, 2012; Rauch and Frese, 2007). As SC1 explained:

*“Usually individuals that are in search for achieving something meaningful in their lives are the ones that consider being an entrepreneur.... those individuals often complain about working for someone else because they believe that they can work for themselves and achieve something”.*

In this study, student's need for achievement is only found significantly related to perceived behavioural control, thus meaning that students with high need for achievement most often perceive entrepreneurship as ease. According to Kerr (2017) individuals with high need for achievement are more likely to engage in innovative activities. However, this is not the case in this study, innovativeness was not found to have any effect on the theory's main constructs and nor on intention. This is in contrast with other researches such as Gürol and Atsan (2006) and Koh (1996) they found that innovativeness is an important personality trait which influences entrepreneurial intentions. Utsch and Rauch (2000) found that innovativeness plays an important role in entrepreneurship but as a mediator. In this sense EC1 mentioned:

*"The indication for innovation is very weak in Lebanon, we do not often see new products and technologies...Most people think that innovation is only the improvement or diversification of a current product; however, innovation is not about having ten different kinds of a tea".*

Weak innovation indicators in Lebanon is a result of many different factors. High level of emigration among Lebanese youth, and university graduates in specific, who left the country with less talented individuals, as indicated by the United Nations (2015) Lebanese emigrants recorded at around 1.9 million out of a total population of 4.5 million. BF2 commented on this issue stating that:

*"Lebanon lost and is still losing its talented youth, specially educated ones...brain drain is a main issue in the country which should be solved, policymakers need to work towards making the Lebanese market more attractive to its citizens".*

Another factor affecting the level of innovation is the tight local market, such issue was mentioned by BF1.

*"Lebanon has the accurate ingredients for acquiring innovative ideas...however, one of the main problems prohibiting young from being innovative is that the Lebanese market is very small...individuals wishing to be an entrepreneur should have a global vision".*



Poor infrastructure and poor education system motivation are other factors affecting the ability of students under the current study from having the intention of being entrepreneurs, where ET2 expressed that:

*“From my experience I found it is really hard to be creative in Lebanon, due to the daily pressure that prohibits an individual from being innovative...In Lebanon we still do not have electricity 24/7, the internet is slow and very expensive”.*

Additionally, BF3 explained that:

*“The structure of most Lebanese universities does not motivate students towards entrepreneurial activities... it also constraints technology development and does not support collaborations between university and market needs”.*

Regardless of its importance, personality traits are not the only factors that affect entrepreneurial intention of students. Entrepreneurial education, friendly environment and supportive government is also required for the development of entrepreneurial intention; thus, the next sessions will discuss these factors.

According to some researchers the psychological characteristics of individuals with the combination of contextual factors make students more inclined towards entrepreneurship (Frank et al., 2007; Zhao et al., 2005; Krueger and Brazeal, 1994).

#### **6.4.4 Educational Support**

A great attention is being given to entrepreneurship in modern education (Pulka et al., 2015; Blenker et al., 2014). Past researchers thought that entrepreneurs were born, since they have some specific characteristics, however, current studies suggest that entrepreneurship can be taught (Blenker et al., 2014; Dickson et al., 2008; Gibb and Hannon 2006; Gorman et al., 1997). As Peter Drucker (1985) stated “Entrepreneurship is not magic; it is not mysterious, and it has nothing to do with genes. It is a discipline and like any discipline it can be learned” (p.143).

Education plays an important role in promoting entrepreneurial activity, European Commission (2012) showed that entrepreneurial education positively influences the intentions of students towards entrepreneurship, it also affect their employability and the nation’s economy (European

Commission 2012). Universities play an important role in affecting students career choice (Keat et al., 2011; Kakkonen, 2010; Izquierdo and Buelens, 2008; Wu and Wu, 2008; Storey 2000), promoting entrepreneurship in education and encouraging an entrepreneurial spirit in universities, increase the chances that students will choose to be entrepreneurs upon graduation (Almobaireek and Manolova, 2012; Matlay et al, 2012; Ertuna and Gurel, 2011; Turker and Selcuk, 2009; Linan and Chen 2009; Franke and Luthje, 2004). Several studies found a direct and positive relation between entrepreneurship education and entrepreneurial intention (Bae et al., 2014; Schlaegel and Koenig, 2014; Zhang et al., 2014; Hassan and Wafa, 2012; Paco et al. 2012; Baybashaija et al., 2011; Florin et al., 2007; Fayolle et al., 2005; Peterman and Kennedy, 2003). Current literature emphasises the importance of universities to expose students to all possible options which includes entrepreneurship. However, education and environment within the university under study seems not to play any important role in influencing students' attitude towards entrepreneurship or directly influencing their intention towards entrepreneurship. Perceived university support was only found significant in relation with perceived behavioural control, however, even such relation was found to be very weak, same results is obtained in a study conducted in Brazil by Barral et al., (2018). Both Lebanon and Brazil are classified as developing countries.

Such findings may be explained by the fact that 70.19% of respondents in the questionnaire mentioned that they did not receive any entrepreneurship education during their lifetime. Moreover, it seems that even the entrepreneurship course given to some business students, is not being as effective as it should be, where BS3 mentioned that:

*“The entrepreneurship course included a project at the end of the semester, but to be honest me and my friends only worked at it for getting grades, there was no time to try to innovate a new business idea”.*

Such situation may not only be found in the university under study, where interviewees mentioned that such case is found in the whole education system in Lebanon, supporting this argument BF1 commented:

*“Formal and non-formal education in Lebanon is still not oriented towards entrepreneurship”.*

Similarly, ENT2 approved that the education in Lebanon is not supportive to entrepreneurship by explicitly stating that:

*“As I studied in Lebanon and in Europe, I think there is a lot for the Lebanese universities to do, there is a huge difference between countries. Lebanese universities need to seriously think about entrepreneurship and put it as a priority in its agenda... The first step may be by starting with establishing effective entrepreneurship centres or clubs”.*

Supporting this argument EP1 highlighted that:

*“Entrepreneurship education is still new in Lebanon that is why we still see that most universities in the country are not taking entrepreneurship seriously, and so we are not noticing a big difference in students’ mind sets towards entrepreneurship”.*

Rae and Carswell (2001) explained that most universities focus on easily teachable skills and they refrain from teaching hard teachable skills such as creativity and innovativeness. Such issue is also found in Lebanon where ENT1 commented that:

*“I wish I knew the needed skills then as I do know them now about opening and operating a business, things would have been much easier, I do not remember I learned real information in the university on how to be entrepreneur or simply how to open a small business”.*

With several countries shifting their strategies towards promoting and developing entrepreneurship education as a solution for unemployment and underemployment and other social problems (Pulka, 2015), it is time for Lebanese education system to get into this same track, as BF2 illustrated:

*“Ministry of Education and Higher Education in Lebanon is not mandating universities to take steps towards teaching entrepreneurship... there is only a handful of universities in Lebanon that is trying to offer entrepreneurship courses with high quality, however, such universities tend to be the most expensive universities in the country, where only small number of students can be enrolled due to low household income...The Lebanese Higher Education system does not have an established framework for entrepreneurship education”.*

As mentioned by a number of interviewees, it is important that the ministry of education requires the teaching of entrepreneurship at an early age, in this sense EC1 commented:

*“The government needs to early invest in infants... It is never too early to start building young’s skills towards entrepreneurship... such investment will lead to future economic development”.*

Such steps need to be taken although it will not be easy to reach such change, EP2, mentioned that:

*“We tried to enter different universities in Lebanon with the purpose of adjusting their curriculum so that it will be updated to what the market need and to the concept of entrepreneurship...but we got shocked about the high number of universities that refused such changes... the ones that accepted at the beginning did not cooperate with us mainly due to the structure of the universities, where any change in the curriculum requires hierarchical approvals, which usually takes a lot of time”.*

As previously discussed, the current study did not find any significant relation between innovativeness and entrepreneurial intention and with any of the theory of planned behaviours constructs. Such result can be further explained with the absence of entrepreneurship education, where some researchers had found that entrepreneurial education plays a vital role in the process of developing innovative skills for students (Greene and Saridakis, 2007; Galloway and Brown, 2002). Such finding was recounted by BF3:

*“The structure of most Lebanese universities does no motivate students towards entrepreneurial activities...it also constrains technology development and does not support collaborations between the university and market needs”.*

This argument was also found within Greek universities, where Piperopoulos (2012) discussed that Greek universities demotivates as well as prevent knowledge and technology transfer within its students. It is important to mention that both Lebanon and Greece are suffering from downward in their economy. As EP1 explained:

*“Students are in need for workshops and trainings that will provide them with entrepreneurial skills, they are also in need for lectures and seminars that will help them*

*think outside the box and be creative and innovative... Students also need to get to know existing entrepreneurs not only to know the good part of being entrepreneur, but also to elaborate them with problems they may face”.*

Furthermore, interviewees entirely agreed that universities need to concentrate on practical orientation of entrepreneurship. As ENT1 mentioned:

*“Providing training to students will make them more aware of the business environment. It teaches them how to discover opportunities and how to take the maximum benefit of available support”.*

#### **6.4.5 Lebanese Environmental Context**

Environmental context refers to the conditions and circumstances that is affecting the development of a country and its community (Wright 2001). Such environment influences the creation and continuous of businesses (Souitaris et al., 2007), for this main reason it is important to analyse the environmental factors while studying entrepreneurship (Henrekson and Davidson, 2002)

Environmental factors considered in this study are availability of economic opportunities, financial support, infrastructure and political stability. In general students under study did not perceive the Lebanese environment as supportive. Based on the quantitative data analysis it is found a positive but weak significant impact of environmental support on perceived behavioural control. Thus, meaning that the environment does not positively affect students’ evaluation of the outcomes related to entrepreneurial behaviour, nor does it directly affect their intention to be entrepreneurs. Such findings reflect respondents’ opinion regarding whether they prefer to open their business in Lebanon or abroad, where the result showed that 57.7% preferred to open their business outside Lebanon. Such findings are in consistent with what ENT1 explained:

*“It is very hard to stand out from the crowd in Lebanon. This is due to many elements but if I want to sum it up in one word, it is the environment that makes it difficult to be innovative or unique in a certain way”*

Majority of respondents (69%) believed that the Lebanese economy does not offer them economic opportunities to be entrepreneurs and 64.24% believe that political instability in the country affects their decision of opening a new business. Supporting such results SC1 emphasised that:

*“Political and economic instability in Lebanon is at its highest peak, it makes it nearly impossible for one to even think about venturing into a new idea or a new untapped market segment. The risk is almost always higher than the foreseen outcome”.*

Further, reflecting on this challenges BF2 additionally expressed that:

*“The instable political and economic situation that Lebanon is facing makes it hard to retain youth talent. A lot of work is done with students to understand their needs and concerns, in order to motivate them to stay in Lebanon and positively contribute to the economy”.*

Moreover, absence of a country’s finance limits and demotivate the action of youth towards entrepreneurship (Hunjra et al., 2011; Baumol et al., 2007). In Lebanon access to finance resource is very low for young entrepreneurs, and it is perceived as hard to be acquired specially that they lack any type of collateral.

BS2 stated that:

*“For me coming up with a business idea is not the main problem.... What I keep thinking about, is from where to get the money I need. Really, I do not know what procedures I should take to get any financial support, loan from a bank or any other institution”.*

In fact, only 9.56% of students under study recognized that the obtaining of loans in Lebanon is easy. Romero et al., (2011) recommended that universities need to enlighten students regarding financial opportunities and possibilities and they also need to play the role of intermediary between students and funding parties. In his study Gaspar (2009) concluded that having a low debt cost encourage individuals to consider opening their own business. In this same perspective SC1 stated that:

*“Providing loans with low interest rate has the ability to increase the intention of individuals towards entrepreneurship... it encourages people who would never have considered it before”.*

A bigger barrier to entrepreneurship in the country is related to the available infrastructure. As discussed in chapter two the country is facing major problems concerning the quality and cost of such infrastructure. Reflecting on the bad situation surrounding the infrastructure BS1 questioned:

*“How can we efficiently plan and apply our ideas, if for today we do not have 24/7 electricity? Internet access is very expensive, how can we invest in Lebanon if we still do not have good, safe and reliable transportation?”.*

SC1 additionally express:

*“Lebanon faces high costs of utilities and infrastructures, which makes local businesses uncompetitive. This situation is established as one of the most important obstacles that faces the Lebanese market”.*

Moreover, EC1 highlighted that:

*“Lebanon faces daily blackouts, we have villages that only have an average of 8hrs of electricity per day, and so they rely on generators to cover the rest of the hours... generators are expensive... this make costs high on companies and so their competitiveness decrease”.*

Such arguments come along the low proportion of students who recognized that the infrastructure of the country supports entrepreneurship, such rate reached 6.35% of the whole sample.

#### **6.4.6 Government Support**

Based on the quantitative results of this research it was found that the governmental incentives do not effectively affect students. Students' evaluation was unfavourable toward Lebanese government support, which seemed to discourage entrepreneurial intentions. No significant relationship between government support and attitudes towards entrepreneurship, perceived behavioural control or entrepreneurial intention was found. Questionnaire results showed that respondents perceive towards government support was low, where the mean was 2.07 out of 5. Such results, accompanied with low proportion of students (10.07%) who believed that government supports youth entrepreneurship, furthermore, only 10.58% of students perceive that government reinforce creation of new business. Questionnaire results reveal that 69.08% of

students disagree that the procedures to start a business in Lebanon is easy, 66.46% believed that there are no tax facilities for start-ups in Lebanon. Doing Business Index (2018) indicated that Lebanon rank 143 out of 190 countries in the ease of doing business index, which indicates a low rank. Moreover, compared to regional peers Lebanon ranks last.

Although the Lebanese government injected \$400 million into the Lebanese enterprise market under what is known as Circular 331 in 2014 and then during 2016 the amount was increased to \$650 million, still 69.38% of the questionnaire respondents answered that the Lebanese government does not provide enough financial support.

It is important to mention, that no public reports were found regarding how Circular 331 was applied or the number of start-ups that had benefit from the incentive, not either how it contributed to job creation. As EC1 mentioned:

*“We do not know how the \$659 million was used, we do not even know if it was actually used in the market... In a corrupt country there is no transparency of data and there is a big risk that funds are not applied as they are supposed to”.*

From another side, SC1 expressed that the timing of the Circular 331 was wrong, where he stated that:

*“The time which 331 circulated was wrong, reforms on infrastructure should have been made before pumping of the fund into the market”.*

According to Audretsch and Thuink (2004) one of the most common barriers for entrepreneurship is the absence and difficulty in obtaining financial resources. Financial incentives provided from the government sends “positive signals” to the market as BF2 elaborated:

*“Providing an easy access to the market and low cost of finance is a positive signal that the government believes in and supports the creation of new business... of course this does not only positively affect the intention towards entrepreneurship but also turn intention into a realistic behaviour”.*

The findings of this study are in accordance to Kouriloff (2000) who explained that in some countries the government is the barrier to entrepreneurship instead of being the key-player in



promoting it. Gabriel et al. (2016) noted that such restrains from the government limits the efforts entrepreneurs put to succeed.

Evidence provided from the interviews reflects that having a supportive regulatory mechanism is essential. As EP1 expressed:

*“To motivate Lebanese in general and students in specific, the first step government needs to do is simplify taxation regulations and the required process for business registration of business... it is not only the procedures that need to be fixed but also the cost related to registration must be reduced... due to government corruption a higher cost exist in the registration of a business”.*

Moreover, ENT2 added:

*“From my experience I believe that business laws and regulations are outdated in Lebanon and it is a major constraint for students to get into entrepreneurship world”.*

Likewise, interviewees agreed on the role the government plays in motivating other parties who have the power and ability to influence entrepreneurship. EC1 explained that:

*“The government has the power to affect the entrepreneurial ecosystem, it all starts from the government which can put and emphasise developed and motivated policies”.*

In addition, ENT1 said:

*“The solution for developing entrepreneurship in the country comes from the Lebanese government adoption of the notion that entrepreneurship is an important factor for the realization of economic growth... starting from here the government will put all the necessary rules, policies and regulations that will support such ecosystem”.*

However, the government needs to monitor the process of supporting entrepreneurship. In this sense EP2 expressed his view regarding the spread of corruption in the country, where he stated:

*“Corruption, corruption, corruption...we are getting a lot of NGOs opened in Lebanon with international funding to support youth entrepreneurship, but little is being done, the government needs to better monitor what is happening”.*

## **6.7 Conceptual Framework**

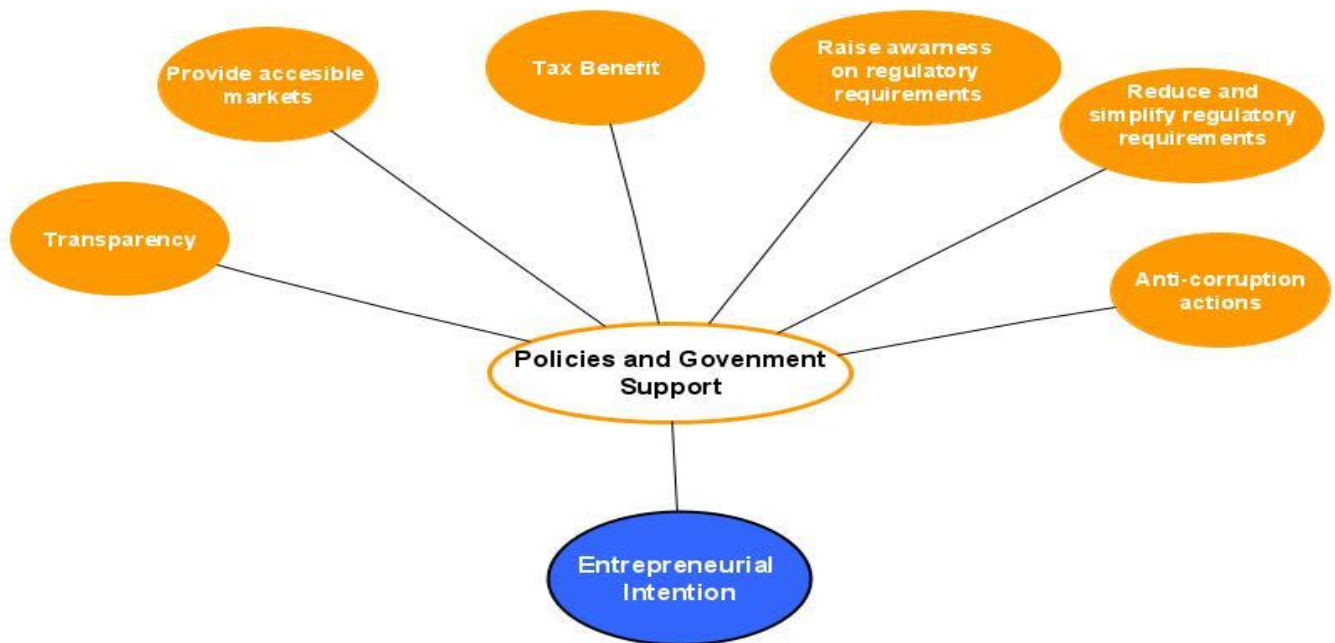
The current study was able to uncover several factors that are triggering students towards entrepreneurship activities in Lebanon. As interest in entrepreneurship is globally increasing, the developed conceptual framework; which is based on the triangulation of the key findings, can capture the attention of policymakers in Lebanon (Figure 6.1). It was found that there are three main stakeholders influencing entrepreneurial intention of students, namely university and education, external environment and the government. The framework for students' entrepreneurial intention details the relationship between the three stakeholders and the enablers and drivers within in each of their remits which will increase the student's entrepreneurial intention

### **6.7.1 Policies and Government Support**

The first dimension of the framework is governmental support, as it is found to be the main player in affecting entrepreneurship ecosystem. It is found that Lebanese government have the greatest negative impact on students' intention towards entrepreneurship in Lebanon (see page 25 and 99). Based on the results of this study for the encouragement of entrepreneurship, government needs to implement policies, structures and regulations that allows for the growth and development of enterprise with minimal restrictions. Key actions are related to the need for reducing and simplifying regulatory requirements for business entry and the decrease of its cost (see page 44, 99 and 153). When this is done, an awareness campaign on regulatory requirements is a step towards reaching transparency in a country that is highly corrupted (see page 44). In this sense, anti- corruption actions will provide potential entrepreneurs with some level of security, as majority of Lebanese have low trust in the government and governmental agencies.

To increase the likelihood of start-ups in general, taxes policies needs to be reformed in order to reach incentivized tax law (check page 89 and 128). Government can promote funding for innovation or assisting potential entrepreneurs with finding financial institutions. As Lebanese market is tight, government needs to take actions to provide entrepreneurs with accessible markets that provide competitive advantages to the Lebanese products and services (check page 55 and

76). As shown in Figure 6.1, the six key enablers to developing entrepreneurship are: transparency, accessibility to markets – list others as detailed in the first part of the framework. The vital stakeholder to make this possible is the government through the development of better policies and providing better support mechanisms.



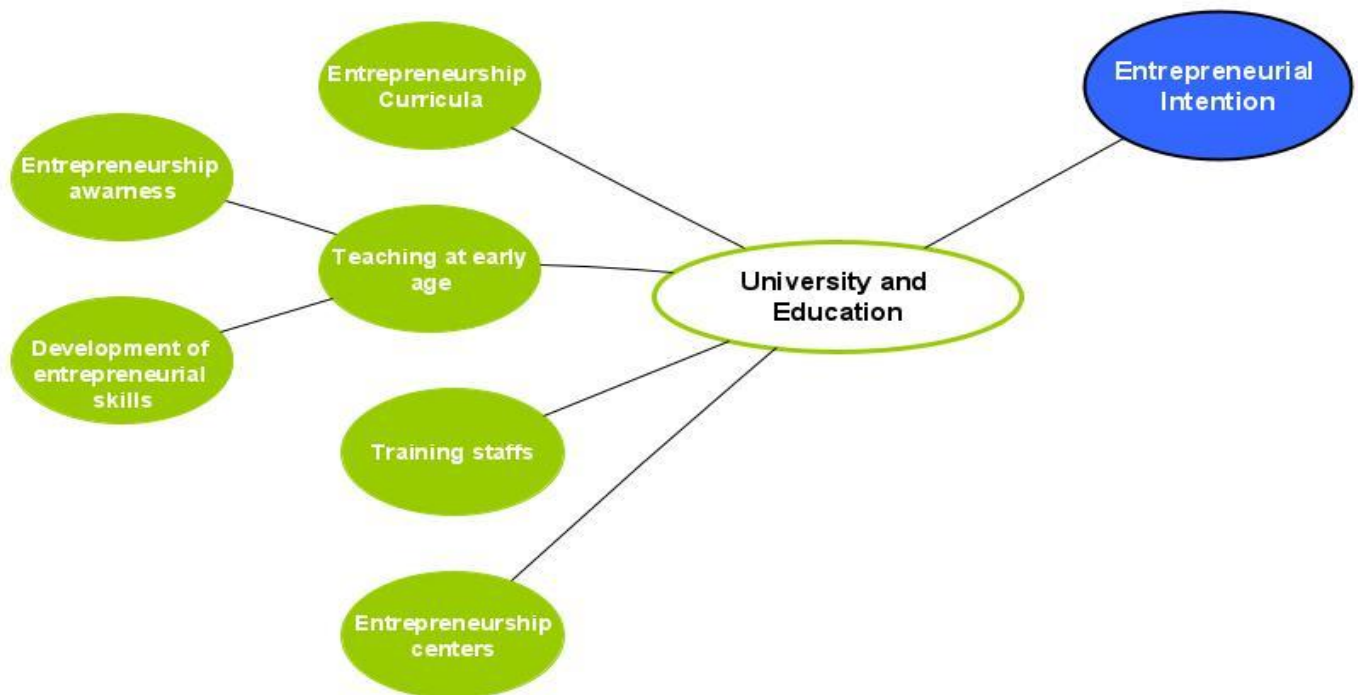
**Figure 6. 1: Policies and Government Support Framework**

### **6.7.2 University and Education**

Education system plays a critical role in affecting students career choice, it is recognized as a potential source for future entrepreneurs (check page 34). The support provided by education institutions can improve the development of favourable perceptions towards entrepreneurship. To reach such goal in Lebanon it seems that starting teaching entrepreneurship at early ages (check page 133), can help in increasing entrepreneurship awareness and it can also help in developing traits that enhances individuals' intention towards entrepreneurship.

In order to prevent being too academic (check page 37) but still provide adequate knowledge and inspiration about entrepreneurship, universities need to consider creating entrepreneurship centres where creative enterprising ideas and entrepreneurial skills can be developed (check page 50). It is also important to include entrepreneurship learning to its curricula (check page 66 and 134), along with providing the necessary training to staffs so that they are well equipped towards the concept and practices of entrepreneurship.

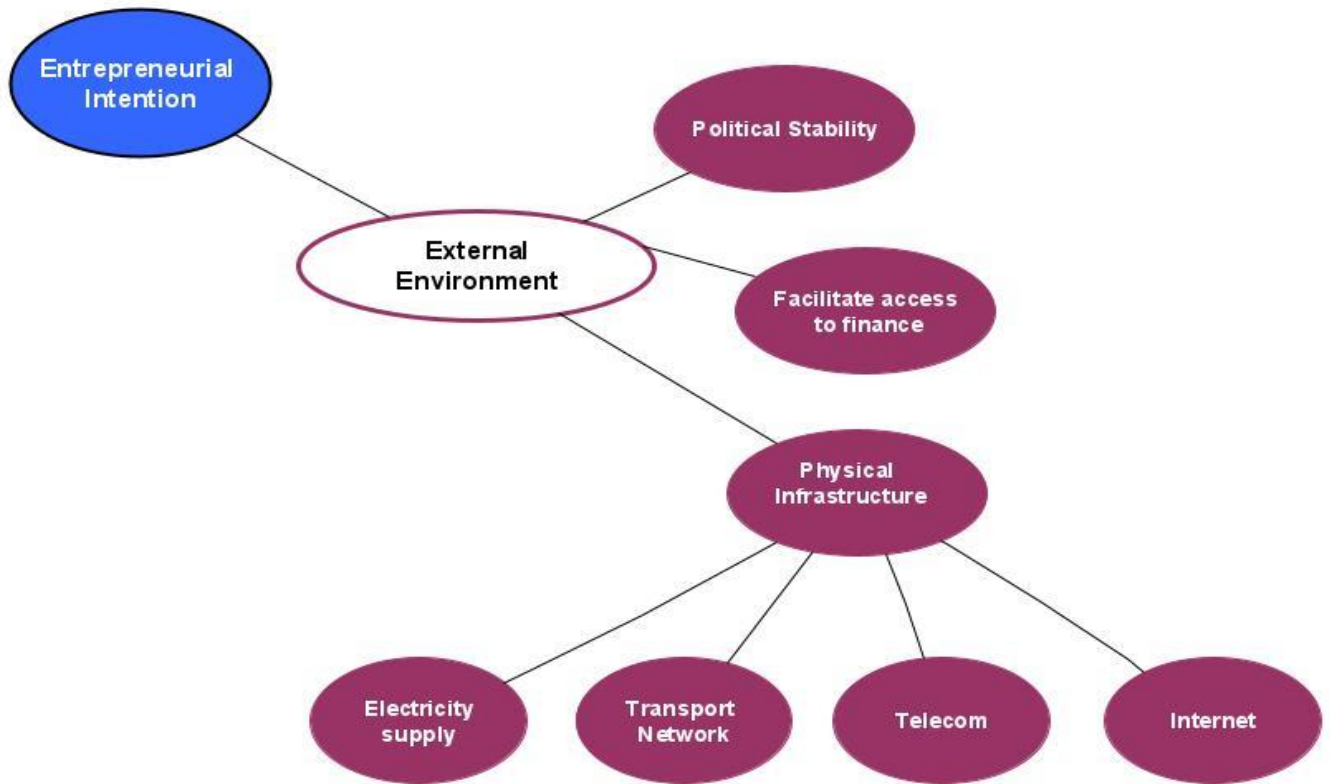
Figure 6.2 shows that there are four key elements to ensure educational institutions are preparing students with the skills required to become entrepreneurs.



**Figure 6. 2: University and Education Framework**

### **6.7.3 External Environment**

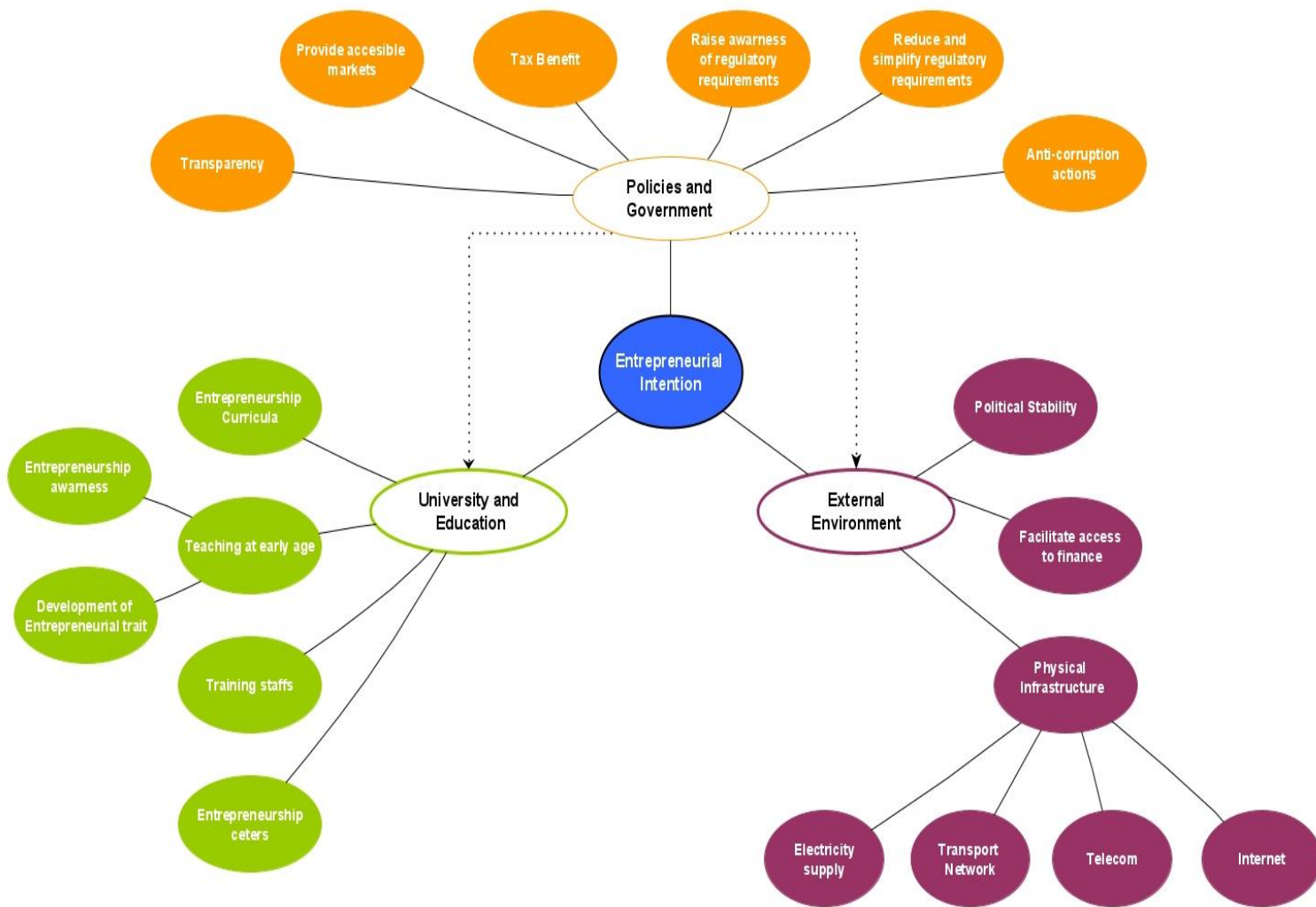
To provide and maintain a supportive external environment to enhance entrepreneurial intention among students. Figure 6.3 shows the three key drivers found in this study to enhance the Lebanese external environment; political stability, finance and physical infrastructure. Firstly, students' perception about the environment affects their intention towards entrepreneurship, such perception is found to be negative in Lebanon (page 26 and 99). The presence of favourable political conditions increases economic opportunities and lowers the degree of students' uncertainties. Secondly, physical infrastructure is essential for encouraging entrepreneurial activities and continuance of existing businesses. Infrastructure in Lebanon needs to be improved (check page 44 and 153) specially regarding means of communication such as the internet and telecoms, the improvement must include the quality and cost. Electricity supply must increase so it can reach all regions during the whole day. In addition, the construction of transport networks like rails and safe highways is highly recommended (check page 131). These four elements are essential enablers to supporting entrepreneurial activity and as such form an important element of the framework. Finally, the facilitation for access to funding and debt payment should also be taken into consideration (check page 14 and 46).



**Figure 6. 3: External Environment Framework**

#### **6.7.4 Summary and Final Framework**

The framework developed as part of the study brings together the three key stakeholders; university and education, external environment and the government. The study identified 13 first level enablers and 6 second level enablers to enhance students' intention towards entrepreneurship (Figure 6.4). Generally, the findings suggest that the main influencer towards motivating students in taking actions towards entrepreneurial activity comes from the government. The Lebanese government can influence entrepreneurship by setting and proposing different rules, policies and regulations, including policies that promotes entrepreneurship education and encourages the incorporation of entrepreneurship curriculum within different education levels, and by designing a supportive entrepreneurial infrastructure that facilitates the development of new business



**Figure 6. 4: Conceptual framework**

## **CHAPTER SEVEN: CONCLUSION AND IMPLICATIONS**

### **7.1 Introduction**

The aim of this research was to build a framework to encourage students' entrepreneurship activities in Lebanon, through understanding factors that are currently affecting their intention towards such activity. The research objectives are:

- Identify the impact entrepreneurship has on a countries development.
- Test applicability of Theory of Planned Behaviour in the context of Lebanon.
- Analyze the level of entrepreneurial characteristics among undergraduate students.
- Investigate students' perceptions towards support provided from their current context.
- Recommend educators, practitioners and government policymakers for developing and optimizing conditions to encourage students' entrepreneurial activity in Lebanon.

This chapter will revisit the research objectives above through the achieved conclusion. Contribution to knowledge and practice will be advance and recommendation for future research will also be discussed.

### **7.2 Research Conclusion**

Through the literature review it was found that entrepreneurship is a main instrument used for decreasing unemployment, increasing innovation and reaching social and economic development; furthermore, it contributes to a country's economic growth. For this main reason, it is seen that entrepreneurship is a main national priority in many countries (Karimi et al., 2015) (objective one). In this study, the aim was to understand the influence of personality traits, the support of university, environment and government on the precursors of students' entrepreneurial intention using the Theory of Planned Behaviour. The purpose being, not to develop new theories, but to add to those already existing within the context of Lebanon to contribute new knowledge. A mixed method was applied, by distributing 3,154 questionnaires to students (response rate 34.9% with 993 usable responses).



This study provided additional evidence regarding the validity and applicability of the Theory of Planned Behaviour in explaining entrepreneurial intention of students in a developing and unstable country. The explanatory power of the model applied is 54%, which is satisfactory compared to other studies. In a study conducted by Krueger et al. (2000) and Goethner et al., (2012) the model used explained 35% of the variance in entrepreneurial intention, whereas it reached 38% in Gelderan et al. (2008) and 45% in the study done by Tkachev and Kolvereid (1999) and Fernandez-Perez et al., (2014).

There are some limitations in scope and uses, only students from business school and from one university took part, however, the data is far reaching because of the demographics of the nine regions where the university has campuses. Therefore, it has been able to identify important findings of the factors affecting entrepreneurial intentions among students within the Lebanese context. Results showed that business students of the university under study have positive attitudes, social norms and perceived behavioural control and intention towards entrepreneurship (objective two). However, there is no assurance that this intention will be transformed to actual behaviour, since intention is also affected by other external factors. Attitude towards entrepreneurship has the highest influence on entrepreneurial intention of students ( $\beta = 0.55$ ). Given that, policymakers in the university, government and individuals in charge of the environment status, could use such result to design effective strategies to influence attitudes of students towards entrepreneurship. Regarding perceived behavioural control and its impact on entrepreneurial intention it is found to be significant, but such impact is considered weak ( $\beta = 0.15$ ). There is still a need to develop students' skills to succeed as entrepreneur, thus, fostering confidence to perform the behaviour and have the intentions towards entrepreneurial activity. Social norms have a significant and a very weak influence on students' intention towards entrepreneurship ( $\beta = 0.09$ ), however it has a higher influence on attitudes ( $\beta = 0.36$ ) and perceived behavioural control ( $\beta = 0.19$ ), thus reflecting that in general parents and close individuals to students are not directly influencing students intention to be entrepreneurs, but they have a higher impact on them in recognizing entrepreneurship as an attractive career and giving confidence that regarding their ability to succeed in such career.

Regarding personality characteristics this research took into consideration need for achievement, locus of control, risk taking, and innovativeness as dimensions of personality traits which affect entrepreneurial intention. According to the findings, innovativeness was not found to be directly

affecting intention of students towards entrepreneurship, neither indirectly through personal attitudes and perceived behavioural control. The analysis results indicate that risk taking was found to have the highest effect on entrepreneurial intention by directly affecting entrepreneurial intention ( $\beta = 0.24$ ) and indirectly ( $\beta = 0.15$ ) affecting it through perceived behavioural control. Whereas, locus of control affected entrepreneurial intention indirectly through personal attitudes ( $\beta = 0.44$ ) and need for achievement ( $\beta = 0.94$ ) indirect affects entrepreneurial intention through perceived behavioural control. Previous researches showed that entrepreneurial traits can be stimulated in students (Torres et al., 2013; Kirby, 2004). Thus, the research findings should be considered by policymakers when designing strategies for encouragement of entrepreneurial activities (objective three).

The partial acceptance of hypotheses revealed that several factors need to be improved for successful growth of entrepreneurial activity in Lebanon. These factors include the university, environment and government support, in order to increase its impact on entrepreneurial intention of students (Figure 6.1 found in chapter six). This study mainly emphasizes the role of educational system, government and environment in supporting students towards entrepreneurship. Such factors can affect students' attitudes towards entrepreneurship positively, it can also have a positive effect on their control and social approval of entrepreneurship. If university offers suitable and practical information combining with inspiration regarding entrepreneurship, possibility that students will choose entrepreneurship as a career will be higher. Findings suggest a need for modernization of the Lebanese educational system. Designing more effective educational policies and aligning curricula with innovation, creation of new ideas and developing of entrepreneurial skills and providing students with essential information about start-ups. Educational system should provide students with the practical experiences and information that will shape their knowledge and skills related to entrepreneurial practices. Furthermore, it is found that the government plays a critical role in encouraging entrepreneurship, due to its ability in pressuring related parties such as universities, financial institutions, not for profit organizations and others to provide the necessary support for developing an entrepreneurial ecosystem. In addition, the current study shows that Lebanon faces problems regarding its stability, demotivated regulative framework and weak infrastructure support (objective four).

To summarize, Lebanon is a developing and financial unstable country, with high unemployment rate in general and between its youth and graduates in specific, due to this main reason several steps need to be taken to improve entrepreneurial ecosystem. Higher attention must be given to its educational programs where there is a need to develop and apply entrepreneurial strategies and pedagogical methods, to achieve an entrepreneurial climate in schools, universities and between the society. Moreover, Lebanon must create and assure a more favourable and stable political and economic environment, in addition to a supportive infrastructure to encourage entrepreneurial activities. Results of this research underline the need to improve the entrepreneurship key competences so that student's desire towards an entrepreneurial career can be turned into a real career choice and achieve a long-term growth for businesses.

Lebanon can learn and take advantage of countries that invested in encouraging and supporting entrepreneurship. In fact, lessons can be taken from the Chinese government who concentrated on encouraging high technology businesses (Cullen et al., 2014). Saudi Arabia, established a 10-years strategy of entrepreneurship efforts and innovation with the goal of putting the country into the same position of high economic competitive nations (Salem, 2014). From another side, the Brazilian government settled different policies to gear development of both low- tech businesses and high- tech businesses. Lebanon can also learn from the case of Rwanda, who turned out to be one of the fastest growing economy in Africa. As Lebanon, Rwanda faced a decade of civil war and political instability, however, a great effort was set and achieved by Rwanda's government to build up programs that could boost the private sector to create jobs and promote economic growth (Kagire, 2010). The main focus of Rwanda's government was in meeting entrepreneurs needs by modernizing and adjusting regulatory processes related to starting, operating and closing a business, in addition, legal and administrative reforms were undertaken. Rwanda's government imported technical expertise from different countries, in order to learn new practices and build the necessary capacity to reach a diverse knowledge base (World Bank, 2013b).

### **7.3 Research Limitations**

The research was based on extensive review of previous empirical research of students' entrepreneurship intention and factors affecting it. Primary quantitative and qualitative data were collected for this study and structural equation modelling and template analysis were used to

analyse collected data. However, every research has some limitations (Saunders et al., 2009), this research reveals some specific limitations that should be highlighted.

The first limitation relates to the use of non- probability purposive sampling, where only a single university was selected to investigate students' intention. This could affect the generalisability of the study; however, data was collected from different regions spread all over Lebanon, and sample size was large enough to obtain significant findings, which may enhance the generalizability of the study. In addition, the sampling only included students enrolled in the school of business.

Second, this study did not focus on entrepreneurial intention stability over time, the focus was on the antecedents of students' entrepreneurial intention. Although previous studies positively related between intentions and future behaviour, it is important to keep in mind that it is not fully assured that intention of all students will be turned to actual entrepreneurial behaviour. Prospective longitudinal research designs may follow up to see which participants start their own business.

Third, this study focused on environment support of the university and not in issues related to course characteristics and teaching methods.

Fourth, although the Lebanese culture seem supportive to entrepreneurship, this study did not focus on the factors that affects the social norms and cultural habits.

Despite the stated limitations, this research provides valuable knowledge for academics, practitioners and government regarding the current system and, provides insight of required changes to encourage mind-sets shift between students.

#### **7.4 Research Contribution to Knowledge**

The current study achieved several notable contributions on different aspects. Several studies have examined the relation between attitudes, subjective norms and perceived behavioural control on entrepreneurial intention of students, however, little study did investigate the factors that affect the mentioned element (Al Mamum et al., 2017). The findings of this study completely support Theory of Planned Behaviour model through highlighting that attitude to entrepreneurship, social norms and perceived behavioural control have significantly positive effects on entrepreneurial intentions. Moreover, the application of the theory of planned behaviour in a non-Western country provides

additional support for the theory. This study also contributes to the theory by examining the impact of exogenous factors, namely personality traits, university, environment and government role on entrepreneurial intention and its antecedents. Furthermore, the current study added to the current literature, the role of behavioural and psychological approaches in the understanding of the entrepreneurial intention, as it integrated personality characteristics, contextual factors and behavioural approach. This study is a first of its kind in Lebanon, as no study has attempted to explain the factors affecting entrepreneurial intention among university students over different Lebanese region. Furthermore, little literature is presented regarding entrepreneurship preference of students in countries suffering from bad economic, political and environmental situation, such as Lebanon. This study presents a first quantitative and qualitative effort to measure entrepreneurship intention of students and understanding the factors that they perceive as supportive or not.

### **7.5 Research Contribution to Management Practices**

In terms of practical implications, this study measures entrepreneurial intention of business students of the largest university in Lebanon. The results have implication for policymakers, universities and practitioners and other concerned parties to gain a better insight of students' personal characteristics, how they perceive the support offered from the university, environment and government towards entrepreneurship, attitudes toward behaviour, social norms, perceived behavioural control, and intention to become entrepreneur. The findings should help Lebanese government better address the critical problem it is facing regarding unemployment and underemployment, by formulating policies and programs that induce university students to pursue an entrepreneurial career. In this regard a national policy that provides a supportive entrepreneurial structure and development (Lee and Peterson, 2001). A national entrepreneurship plan is suggested to be implemented in order to achieve a business- friendly environment that create a conducive entrepreneurship ecosystem. Such step may encourage students to seriously think about entrepreneurship as a career option and encourage already graduated students to create their own innovative business inside Lebanon. The suggested plan might enable small businesses to grow through receiving financial and business development services, opening them to new markets and networks; specially during their first years. To ensure a better environment for entrepreneurs in Lebanon, we suggest that the Lebanese government provide tax incentives as well as loans with

low interest rate, reduce the cost and time for paperwork regarding the registration of a company. The plan must include the Ministry of Higher Education, due to its role in supervising the universities and schools in the country. The ministry needs to promote the importance of entrepreneurship education in universities as well as in schools, it should work to ensure a high-quality program in entrepreneurship.

Within this study university was evaluated as not efficiently encouraging positive attitudes and perceived behavioural control regarding entrepreneurial activities. Such results can encourage the university under study and other universities in the country to re-think about its curriculum and extra curriculum activities and consider new strategies that considers promoting entrepreneurship among its students. There is a room for improving the university position towards entrepreneurship and taking advantage of the high proportion of students (88.62%) who answered that they would like to attend entrepreneurship course and/ or training. It draws attention to the need to modernize universities environment in Lebanon, this environment should be more pro- active and rich in experiences that boost students' self- esteem and confidence. Another important implication relates to the pedagogical solutions which motivates students to innovation and creative behaviour (Fayolle, 2013; Joensuu- Salo et al., 2015; Jones and Iredela 2010). Universities need to focus on creating effective entrepreneurship courses; it can learn from other universities experiences and bring international practices to enhance entrepreneurial intention of Lebanon. Such course needs to be concern with the development of students' skills and knowledge about start-ups, creation of ideas, creativity, problem solving and critical thinking. The course content must be based on applicable and real information regarding Lebanon, workshops, guest lecturers, entrepreneurial role models are critical for building students minds towards entrepreneurship.

It is important for universities to invest in entrepreneurship and business advice centres and incubators, that provide students with relevant information about market, funding sources, legal advices, and other important services.

As personality traits affect students' attitudes, perceived behavioural control and intention towards entrepreneurship, policymakers need to design strategies that develop their traits. As Hansemark (1998) found that some personal traits can be developed and changed over time specially need for achievement and propensity to take risk.

Creating favourable macro environment and investment climate for accelerated private sector growth is a priority. Facilitate access to markets to support private sector growth and recovery of jobs. Promote entrepreneurship as a viable way out of unemployment and poverty. Awareness campaigns targeting the youth unemployed in particular will promote an entrepreneurship culture conducive to private sector growth.

## **7.6 Recommendation for Future Research**

Future research may focus on conducting a longitudinal study on students who are registered in entrepreneurship courses and evaluate students' skills and intention pre and post the course in order to identify the course characteristics and effective teaching methods. Contextual factors are not limited to the factors applied in the current study; therefore, future studies may also include other macro and micro environmental and contextual factors. However, the model used in this study could be applied in other Lebanese universities and in students other than the ones registered in the business school. Future researches may try to investigate the effect of the availability of university resources on entrepreneurial attitudes towards self-employment, subjective norms, perceived behavioural control and intentions towards self-employment.

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## Appendices

### Appendix A: Main Research Streams in Entrepreneurship Definition

Author	Entrepreneurship definition
Cantillon (1734)	Entrepreneurship is the process of buying at a certain price with uncertainty about future selling price.
Adam Smith (1776)	Entrepreneur is a capitalist that that creates an organization for commercial purpose
Jean Baptiste Say (1803)	Entrepreneurship creates value from transferring of resources to higher productivity.
Knight (1921)	Differentiated between risk and uncertainty, where an entrepreneur bears uncertainty of market dynamics, they attempt to predict and act upon change within markets.
Schumpeter (1934)	Entrepreneurs are innovators who implement change new combinations which causes discontinuous economic evolution.
Mises (1949)	Is an individual who is able to anticipate the market, and thus being able to produce cheaply than competitors and earning higher profits by being useful to customers.
David McClelland (1961)	An entrepreneur is an energetic and moderate risk taker individual, with high need for achievement
Collins et al., (1964)	Differentiated between a manager and an entrepreneur, the first tend to make a career in the hierarchy, whereas the second feels that he/ she is a prisoner of the system and wants to get free of it.
Kirzner (1973)	Entrepreneurship is related to the identification of imperfection in the market by discovering profitable opportunities, through initiating actions to fill currently

	unsatisfied market needs or doing more efficiently what is already being done.
Cole (1968)	Is the concern to start, maintain and evolve a profit venture.
Shapero (1975)	Entrepreneurship is about taking initiatives, accept risk of failure and have internal locus of control.
Casson (1982)	Entrepreneurship is having a different perception of situations.
Drucker (1985)	An entrepreneur pursuit change, with innovation being the main tool. An entrepreneur extract profits from new, unique and valuable combinations of resources in an uncertain and ambiguous environment.
Kent (1989)	entrepreneur “as a person who introduces a new service or product, develops and implements a new technology, opens a new business, discovers a new or existing source of supply for a scarce resource, and reorganizes innovative management” (p.154)
Sapienza and Timmons (1989)	Entrepreneurship is having the capability of creating something from nothing.
Stevenson and Jarillo (1990)	Entrepreneurship is pursuing an opportunity without having concerns for current resources.
Amit et al. (1993)	Entrepreneurship is a process of generating profits from unique and valuable resources in an uncertain environment.
Kuratko and Hodgetts (1997)	Is the active process of generating additional wealth by assuming major risks in terms of equity, time and/ or career commitment of providing value for products and services.
Morris and Jone (1998)	Is a process of creation and realizing
Shane and Venkataraman (2000)	The process of entrepreneurship entails finding a gainful and viable business opportunity, having the knowledge and the ability to exploit the opportunity, and then followed by the needs in order to exploit this particular business opportunity.

	An entrepreneur plus an opportunity generates what is called entrepreneurship.
Bolton and Thompson (2000)	Is a person who creates and innovates to build something of recognized value around
Casson 2003	Tried to integrate Schumpeter and Knight definitions by stating that an entrepreneur is an individual specialized in decision making and owns various skills, which provided them with the ability to make value judgments for a smart use of scarce resources.
Audretsch; et al. (2002).	Entrepreneurship is the ability to recognize the commercial potential of the invention and organize the capital, talent, and other resources that turn an invention into a commercially viable innovation.
Martin and Osberg (2007)	Entrepreneurship is the result of the combination between the context in which the opportunity arises, personal abilities to discover and use the opportunity, and the ability to transform the opportunity to reality
Panda and Kumar (2011)	Entrepreneurship is not only about the planning of a business idea, but instead it is the prediction and maintenance of the organization so that it will have continuous operation
Pratheeba (2014)	Is an act that encourages an individual to search for an opportunity and proceed in order to reach a new value or economic development.

Compiled by the author

## Appendix B: Request for Distribution of Questionnaire

2/5/2020 Lebanese International University Mail - Students Questionnaire



Samia Youssef <samia.youssef@liu.edu.lb>

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### Students Questionnaire

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Samia Youssef <samia.youssef@liu.edu.lb> wed, Mar 20, 2019 at 7:01 PM

To: Lina Shouman <lina.shouman@liu.edu.lb> Cc: Farid Abdallah <farid.abdallah@liu.edu.lb>

Dear Dr. Shouman

Hope my mail finds you well.

As Dr. Farid Abdallah had previously informed you, in order to successfully complete my Doctoral in Business Administration dissertation in Staffordshire University, United Kingdom, I need to distribute a questionnaire to students.

The questionnaire is related to university students' entrepreneurial intention, this study will help in introducing new policies, strategies and curriculum programs to induce a higher inclination towards entrepreneurial career, thereby contributing in reducing unemployment rate in the country. I would need your support by sending an e-mail to the below instructors (cc me), asking them to forward the link to their students and to cc me when they do that. Kindly also ask them to make a small announcement to their students in their classes regarding the questionnaire.

You may find the questionnaire in the following link <https://goo.gl/forms/GzpYkFpV06y7Zqow1>

BMIS480	Tannous – Hiba		Tripoli	hiba.tannous@liu.edu.lb
BMIS480	Mortada N Ali		Mount	ali.mortada@liu.edu.lb



			Lebanon	
BMIS480	El Hajj A Rana		Saida	rana.elhajj@liu.edu.lb
BMIS480	Hamze T Mohamad		Nabatieh	mohamad.hamze@liu.edu.lb
BMIS480	Houcheimi A Abdallah		Rayak	abdallah.houcheimi@liu.edu.lb
BMIS480	Hassoun J Rabih		Bekaa	rabih.hassoun@liu.edu.lb
BMIS480	Tannous – Hiba		Beirut	hiba.tannous@liu.edu.lb
BMIS480	Rammal A Hussein			hussein.rammal@liu.edu.lb
BMIS480	Chahine U Sarah	B	Beirut	sarah.chahine@liu.edu.lb

I really do appreciate your help.

Thank you

Samia Youssef <https://www.linkedin.com/in/samia-youssef-5886968377343634779&siml=msg-a%3Ar58869...> 111

## **Appendix C: Research Participant Information Sheet**

**Staffordshire University**

**Research Participant Information Sheet**

*Factors Affecting Entrepreneurial Intention of University Students: A Lebanese Case Study*

**Research Conducted by:** Samia Youssef, Staffordshire University- UK

[samia.youssef@liu.edu.lb](mailto:samia.youssef@liu.edu.lb) [samia.youssef@research.staffs.ac.uk](mailto:samia.youssef@research.staffs.ac.uk)

### **1. Invitation:**

You are invited to take part in this research, before deciding to accept or reject the participation please take a moment to understand the reason for the research.

If there is anything not clear, please feel free to ask me.

Thank you for reading this.

### **2. Brief Overview of the study:**

Lebanon is facing high unemployment rate; the general unemployment rate stands at 25%, with youth unemployment exceeding 37%. Different studies showed that entrepreneurship plays an important role in decreasing unemployment and encouraging economic development.

The objectives are to:

- Identify the impact entrepreneurship has on a country's development.
- Test applicability of Theory of Planned Behaviour in the Lebanese context.
- Analyse the level of availability of entrepreneurial characteristics among university students.
- Investigate students' perceptions towards support provided from their current context.
- Recommend educators, practitioners and government policymakers for developing and optimizing conditions to encourage students' entrepreneurial intention and thus entrepreneurial activity in Lebanon.

### **3. Why have you been chosen and what would the interview be about?**

Interviews will be conducted with specialist and individuals that can provide explanation about barriers and obstacles influencing students towards an entrepreneurial career.

### **4. What is the duration and place for the research conduction?**

The interview will be conducted in any place chosen by the interviewee, with a pre-appointed time and its duration will approximately be 30 minutes.

### **5. How will data be collected?**

Interviews will be recorded after the approval of the interviewee. The information will be used with other sources of information to support the development of a conceptual model to better understand the factors that affect students' intention towards entrepreneurship.

### **6. Will taking part in this project be kept confidential?**

All information will be kept strictly confidential, and participants will be coded in the study.

### **7. Do I have to take part?**

It is up to you to decide whether to participate. If you do decide to take part in this research, a copy of this information sheet will be provided, and you will be asked to sign a consent form. However, you can still withdraw at any time, without giving justifications.

### **8. Is there any possible disadvantages and risks of taking part?**

Participating in the research is not anticipated to cause you any disadvantages or discomfort.

*Thank you for taking part in this research*

## Appendix D: Consent Form

### Factors Affecting Entrepreneurial Intention of University Students:

#### A Lebanese Case Study

### Consent Form

NAME \_\_\_\_\_

Has the purpose of the research project been explained to you? **Yes / No**

Have you been given an information sheet about the research? **Yes / No**

Have you been given the opportunity to ask questions about the project? **Yes / No**

Do you understand that you are free to leave at any time without giving an explanation?

**Yes / No**

Do you understand that you do not have to answer anything you do not wish to? **Yes / No**

Do you understand that you have the right to ask for the recorder (if used) to be switched off at any point?

**Yes / No / Not applicable**

**I confirm that this information has been provided prior to the research. I agree to take part in this research project.**

Signed \_\_\_\_\_

Date \_\_\_\_\_

Researcher \_\_\_\_\_

## Appendix E: Questionnaire

### Survey of entrepreneurial intention of university students in Lebanon

Dear Student,

This study is part of a Doctoral in Business Administration dissertation in Staffordshire University, United Kingdom. The purpose of the survey is to better understand the factors that impact university students' intention to become entrepreneurs (opening creative business)

The survey will take approximately 10 minutes, your participation is voluntary, and your response will be completely anonymous and kept confidential.

If you have any questions or concerns, feel free to contact Mrs. Samia Youssef at [samia.youssef@liu.edu.lb](mailto:samia.youssef@liu.edu.lb) or [samia.youssef@research.staffs.ac.uk](mailto:samia.youssef@research.staffs.ac.uk).

By completing this survey, you are consenting to participate in this study.

Thank you in Advance

أعزائي الطلاب إن هذه الدراسة هي جزء مهم لإنهاء أطروحة الدكتوراه في إدارة الأعمال في جامعة ستافوردشاير، بريطانيا – المملكة المتحدة، والغرض منها هو دراسة العوامل التي تؤثر على نية الطلاب ليصبحوا رواد أعمال بشكل أفضل من خلال العمل على فتح أعمال

إبداعية إن المدة المخصصة لتعبئة الإستمارة هي عشرة دقائق، وتعتبر مشاركتك تطوعية وسرية إذا كان لديك أية أسئلة أو إستفسارات عن الموضوع، لا تتردد في التواصل مع الأستاذة سامية يوسف على البريد الإلكتروني التالي

[samia.youssef@liu.edu.lb](mailto:samia.youssef@liu.edu.lb) أو [samia.youssef@research.staffs.ac.uk](mailto:samia.youssef@research.staffs.ac.uk).

إذا قررت ملئ هذه الإستمارة أدناه، فإنك ستعتبر موافقا على المشاركة في إستكمال هذه الدراسة.

\* Required

"Entrepreneurship" in this study means opening your own creative business.

---

ريادة الأعمال " تعني في هذه الدراسة فتح أعمالك الإبداعية الخاصة"

1. Gender \* Mark only one oval.

☐

Male

☐

Female

2. Campus (الفرع الجامعي) \* Mark only one oval.

☐

Akkar

☐

Beirut

☐☐

Khiyara

☐☐

Saida

☐☐

Mount Lebanon

☐

Rayak

Nabatieh

Tripoli

Tyre

3.3 Your Major is: (الاختصاص الجامعي) \* Mark only one oval.

☐

Accounting Information Systsem

☐☐

Banking and Finance

☐☐

Economics

☐

Hospitality Management

☐☐

Business Management

Management Information System

International Business Management

Marketing

4. You are a: \* Mark only one oval.

- ☐ Junior student (1st year) طالب مبتدئ
- ☐ Sophomore student (2nd year) طالب في السنة الثانية
- ☐

Senior student (to be graduate this year) طالب في السنة الثالثة - تتحضر للتخرج

5. In High School you were in a: \* Mark only one oval. عندما كنت في المرحلة الثانوية تعلمت في:

- ☐ Private School مدرسة رسمية
- ☐ Public School مدرسة خاصة

6. Employment Status: \* وضعك المهني Mark only one oval.

- ☐ I run my own business تدير أعمالك الخاصة
- ☐ I work in my family business تعمل في مجال عمل العائلة
- ☐ I work in a private business تعمل في مؤسسة خاصة
- ☐

I work in public institution لا تعمل I do not work في مؤسسة عامة

7. Grade Point Average (GPA): \* معدلك الجامعي Mark only one oval.

- ☐ Zero
- ☐ Less than 1
- ☐ 1-1.9
- ☐ 2-2.9

3-3.5

3.6-4

8. Family Income: \* دخل العائلة Mark only one oval.

- ☐ Less than \$500
- ☐ Between \$501 and \$1,000 per month
- ☐ Between \$1,001 and \$2,000 per month

More than \$2,000 per month

9. Does anyone you care about run their own business? هل هناك شخص يهتمك أمره لديه أعماله \*

\* الخاصة

Mark only one oval.

- ☐ Father الأب
- ☐ Mother الأم
- ☐ Sister/Brother الأخت / الأخ
- ☐ Aunt/Uncle العممة / العم

Friend صديق

None لا أحد

10. What are you planning to do upon graduation? ما الذي تخطط له بعد التخرج \* Mark only one oval.

- ☐ Postgraduate studies الدراسات العليا
- ☐ Work as an employee in private sector موظف في القطاع الخاص
- ☐ Work as an employee in public sector موظف في القطاع العام

Work in family business العمل في مجال عمل الأهل

Start my own business بدء عملي الخاص



11. If you are to open a business where do you prefer to open it? إذا كنت ترغب في فتح

Mark only one oval. \* مشروع تجاري، أين تفضل فتحه

☐

Lebanon لبنان

☐

Abroad الخارج

12. Do you like to attend entrepreneurship courses and training? هل ترغب في حضور

Mark only one oval. \* دورات حول ريادة الأعمال

☐

Yes

☐

No

13. Did you take any entrepreneurial course or training session? هل تعلمت مادة أو حضرت

Mark only one oval. \* دورة تدريبية حول ريادة الأعمال

☐

Yes

☐

No

Indicate the extend you agree or disagree with the

following statements by ticking below the appropriate number

حدد المدى الذي توافق أو على توافق عليه وفقاً للمستوى المذكور في الجدول أدناه

14. My professional goal is to be an entrepreneur. هدفني المهني هو فتح عملي الخاص. Mark only one oval.

1

2

3

4

5

Strongly Disagree لا أوافق مطلقاً

☐☐☐☐☐

Strongly Agree أوافق بشدة

15. I will make every effort to start my own business. سأبذل قصارى جهدي لأقوم بعملتي الخاص. Mark \* only one oval.

1	2	3	4	5	
Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق غربة

16. I am seriously thinking of starting my business. أنا أفكر بجدّة في بدء عملي الخاص. Mark \* only one oval.

1	2	3	4	5	
Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق غربة

17. I am ready to do anything to be an entrepreneur. أنا مستعد لفعل أي شيء لأصبح رائد أعمال. Mark \* only one oval.

1	2	3	4	5	
Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق غربة

18. I have the intention to start my own business upon graduation from university. لدي

Mark \* only one oval. نية البدء بعملتي الخاص بعد التخرج

1	2	3	4	5	
Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق غربة

19. I have the intention to start my business in the next 5 years of graduation. لدي نية

Mark \* only one oval. بفتح عملي الخاص خلال السنوات الخمس بعد التخرج

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐☐☐☐☐

Strongly Agree أولق  
مطئاً

20. Being an entrepreneur would give me satisfaction. أعمال. ساشعر بالرضا اذا أصبحت رجل أعمال. Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐☐☐☐☐

Strongly Agree أولق  
مطئاً

21. Being an entrepreneur implies more advantage than disadvantage to me. أن أكون

Mark only one oval. رائد أعمال فهذه ميزة وليست عيباً لي

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐☐☐☐☐

Strongly Agree أولق  
مطئاً

22. A career as an entrepreneur is attractive to me. مهنة رجل الأعمال هي الأكثر جذاباً لي. Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐☐☐☐☐

Strongly Agree أولق  
مطئاً

23. I would like to be an entrepreneur rather than employed. أود أن أكون رائد أعمال بدلاً من أن

Mark only one oval. أكون موظفاً

1 2 3 4 5

Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق مطناً
------------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	------------------------------

24. If I have the opportunity and resources, I would love to start a business. إذا كانت لدي

Mark only one oval. \*الفرصة والموارد فإنني أرغب بالقيام بعمل تجاري

1 2 3 4 5

Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق مطناً
------------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	------------------------------

25. My closest family members think I should start my career as an entrepreneur. أفراد

Mark only one oval. \*عائلتي يفضلون أن أبدء مهنتي كرائد أعمال

1 2 3 4 5

Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق مطناً
------------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	------------------------------

26. My closest friends think I should start my career as an entrepreneur. أصدقائي المقربين

Mark only one oval. \*يفضلون أن أبدء مهنتي كرائد أعمال

1 2 3 4 5

Strongly Disagree لا أولق مطناً	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree أولق مطناً
------------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	------------------------------

27. People that are important to me think I should start my career as an

entrepreneur. Mark only one oval. \*الأشخاص المهمون لي يفضلون أن أبدء مهنتي كرائد أعمال

1 2 3 4 5

Strongly Disagree لا أولق مطنا	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Strongly Agree أولق غردة
-----------------------------------	---	-----------------------------

28. I do care about the opinion of others If I decide to be an entrepreneur. أهتم برأي

Mark only one oval. \* الآخرين عندما أقرر أن أكون رائد أعمال

1      2      3      4      5

Strongly Disagree لا أولق مطنا	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Strongly Agree أولق غردة
-----------------------------------	---	-----------------------------

29. If I was an entrepreneur, I would have full control of my business. إذا كنت رائد أعمال

Mark only one oval. \* فسيكون لدي سيطرة كاملة على عملي

1      2      3      4      5

Strongly Disagree لا أولق مطنا	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Strongly Agree أولق غردة
-----------------------------------	---	-----------------------------

30. For me it is very easy to open a business. بالنسبة لي، من السهل جدا فتح شركة. Mark only one oval. \*

1      2      3      4      5

Strongly Disagree لا أولق مطنا	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Strongly Agree أولق غردة
-----------------------------------	---	-----------------------------

31. I am confident that if I start a business, failure of chances would be low. أنا واثق من

Mark only one oval. \* أنني إذا بدأت نشاطا تجاريا احتمال الفشل سيكون ضئيل

1      2      3      4      5

Strongly Disagree لا أولق مطنا	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Strongly Agree أولق غردة
-----------------------------------	---	-----------------------------

32. I know all the practical details of starting a business. أعلم كافة التفاصيل العملية للبدء بعمل

\* تجاري

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree						Strongly Agree
لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أولق
مطئاً						ئرءة

33. I always try to perform better than others. \* احاول دائماً أن أقدم أداء أكثر من الآخرين. Mark only one oval.

	1	2	3	4	5	
Strongly Disagree						Strongly Agree
لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أولق
مطئاً						ئرءة

34. I prefer hard work than easy work. \* أفضل العمل الصعب أكثر من العمل السهل. Mark only one oval.

	1	2	3	4	5	
Strongly Disagree						Strongly Agree
لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أولق
مطئاً						ئرءة

35. I have no fear of failure. \* لا أخاف من الفشل. Mark only one oval.

	1	2	3	4	5	
Strongly Disagree						Strongly Agree
لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أولق
مطئاً						ئرءة

36. I do not mind working for free to get the experience I need. لا أمانع من العمل مجاناً بغية.

\*Mark only one oval. الحصول على الخبرة التي أحتاج إليها

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
ئرءة

37. Business success is not due to luck. النءاء الءءارء لا ءكون بسبب الءظ. \* Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
ئرءة

38. My life is determined by my own acts. ءءاءء ءءءءءا أفعاءء الءاءة. \* Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
ئرءة

39. I don't give up when I fail in a task. لا أءءسلم إءءا أفءءءء ءءء مهمءء ما. \* Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
ئرءة

40. Risk of failure is not a main concern for me. إن ءطر الفءل لءس مصدر قلق رءءسءء بالنسبة لء. \* Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
ئرءة

41. I don't mind working in a high-risk work environment, even if it will not provide

me with a stable income. Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree
	مطئ						ئدة

42. One should start a business even if there is a chance of risk. على المرء أن يفتح عمله.

Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree
	مطئ						ئدة

43. I often surprise people with new ideas. كثيرا ما أفاجئ الناس بأفكاري الجديدة. Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree
	مطئ						ئدة

44. I am a creative person. أنا شخص مبدع. Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree
	مطئ						ئدة

45. People often ask me for help in creative activities. كثيرا ما يطلب الناس مني القيام بالأنشطة.

\* الإبداعية

Mark only one oval.



1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
مطئاً

46. My university/ school provided me with the knowledge and information required

to start a business. Mark only one oval. \*زودتني جامعتي/مدرسي بالمعلومات اللازمة للبدء بعمل تجاري

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
مطئاً

47. My university/ school encourages me to develop creative ideas for being an

entrepreneur. Mark only one oval. \*تشجعني جامعتي/مدرستي على تطوير أفكارني الإبداعية لأكون رائد أعمال

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
مطئاً

48. During classes teachers provide students with real business examples. خلال شرح

Mark only one oval. \*الدرس يقدم المعلمون للطلاب أمثلة حقيقة عن ريادة الأعمال

1 2 3 4 5

Strongly Disagree لا أولق  
مطئاً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
مطئاً

49. University/ School helped me to identify business opportunities. / ساعدتني الجامعة /

Mark only one oval. \*المدرسة على اكتشاف فرص استثمارية

1 2 3 4 5

Strongly Disagree لا أولق مطلقاً ☐ ☐ ☐ ☐ ☐ Strongly Agree أولق مطلقاً

50. University/ School provides me with information regarding startup centers in Lebanon (such as Berytech, BIAT, Entrepreneurs Lebanon....etc.) زودتني الجامعة/المدرسة

Mark only one oval. \* بمعلومات حول مراكز داعمة للشركات الناشئة في لبنان

1 2 3 4 5

Strongly Disagree لا أولق مطلقاً ☐ ☐ ☐ ☐ ☐ Strongly Agree أولق مطلقاً

51. University/ School taught me how to prepare a feasibility study. علمتني الجامعة/المدرسة

Mark only one oval. \* كيفية إعداد دراسة جدوى

1 2 3 4 5

Strongly Disagree لا أولق مطلقاً ☐ ☐ ☐ ☐ ☐ Strongly Agree أولق مطلقاً

52. University/ School often prepares workshops, seminars and training regarding

entrepreneurship. تعمل الجامعة/المدرسة على إعداد الكثير من المحاضرات أو اللقاءات أو الدورات التدريبية المتعلقة

\* بتنظيم المشاريع

Mark only one oval.

1 2 3 4 5

Strongly Disagree لا أولق مطلقاً ☐ ☐ ☐ ☐ ☐ Strongly Agree أولق مطلقاً

53. Lebanese government supports youth entrepreneurship. الحكومة اللبنانية تدعم ريادة الأعمال

\* للشباب

Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطىا							نردة

54. Lebanese government supports creation of new business. الحكومة اللبنانية تدعم إنشاء

\* الأعمال الجديدة

Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطىا							نردة

55. Procedures to start a business is easy in Lebanon. تعتبر إجراءات البدء في العمل التجاري سهلة

\* في لبنان

Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطىا							نردة

56. Lebanese Government provides tax facilities for startups. توفر الحكومة اللبنانية تسهيلات

\* ضريبية للشركات الناشئة

Mark only one oval.

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطنا						مردة	

57. Lebanese Government provides financial incentives for startups. توفر الحكومة اللبنانية.

Mark only one oval. \*حوافز مالية للشركات الناشئة

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطنا						مردة	

58. In the Lebanese society having own business is better than being employed. في

Mark only one oval. \*المجتمع اللبناني، يعتبر العمل الخاص أفضل من أن تكون موظفا

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطنا						مردة	

59. Lebanese economy provides many opportunities for entrepreneurs. يوفر الاقتصاد

Mark only one oval. \*اللبناني العديد من الفرص الاستثمارية

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطنا						مردة	

60. It is easy to obtain loans in Lebanon. من السهل الحصول على القروض في لبنان. Mark only one oval. \*

1 2 3 4 5

Strongly Disagree	لا أولق	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree	أولق
	مطنا						مردة	

61. Infrastructure (electricity, internet, water...) in Lebanon supports startup

\*companies. Mark only one oval. إن البنية التحتية في لبنان تدعم الشركات الناشئة-مياه، كهرباء، إنترنت

1 2 3 4 5

Strongly Disagree لا أولق  
مطناً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
غردة

62. The political instability in Lebanon does not affect the decision of opening a

\*business. Mark only one oval. لا يؤثر عدم الإستقرار السياسي في لبنان على قرار فتح مشروع تجاري

1 2 3 4 5

Strongly Disagree لا أولق  
مطناً

☐ ☐ ☐ ☐ ☐

Strongly Agree أولق  
غردة

Powered by



## Appendix F: Ethical Approval

### Staffordshire Business School



### ETHICAL APPROVAL FEEDBACK

<b>Researcher name:</b>	Samia Youssef
<b>Title of Study:</b>	Factors impacting entrepreneurial intention of university students in Lebanon
<b>Status of approval:</b>	Approved

Thank you for your ethics application. Your research proposal has been approved by the Ethics Panel and you may commence the implementation phase of your study. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

When your study is complete, please send the ethics committee an end of study report. A template can be found on the ethics BlackBoard site.

**Signed:**

A handwritten signature in black ink, appearing to read 'A. Hanks'.

**Date: 20/03/2019**

Dr. Andrew Hanks

Chair of the Staffordshire Business School Ethics Panel

## Appendix G: Skewness and Kurtosis

	Skewness	Kurtosis
14. My professional goal is to be an entrepreneur.	-0.651	-0.369
15. I will make every effort to start my own business.	-1.104	0.509
16. I am seriously thinking of starting my business	-0.705	-0.371
17. I am ready to do anything to be an entrepreneur.	-1.082	0.506
18. I have the intention to start my own business upon graduation from university.	-0.511	-0.630
19. I have the intention to start my business in the next 5 years of graduation.	-0.740	-0.270
20. Being an entrepreneur would give me satisfaction.	-1.542	2.018
21. Being an entrepreneur implies more advantage than disadvantage to me.	-1.629	2.594
22. A career as an entrepreneur is attractive to me.	-1.010	0.316
23. I would like to be an entrepreneur rather than employed.	-1.404	1.472
24. If I have the opportunity and resources, I would love to start a business.	-1.390	1.539
25. My closest family members think I should start my career as an entrepreneur.	-0.224	-0.604
26. My closest friends think I should start my career as an entrepreneur	-0.184	-0.475
27. People that are important to me think I should start my career as an entrepreneur.	-0.348	-0.482
28. I do care about the opinion of others If I decide to be an entrepreneur.	0.024	-1.116
29. If I was an entrepreneur, I would have full control of my business.	-1.108	1.124
30. For me it is very easy to open a business.	0.483	-0.240
31. I am confident that if I start a business, failure of chances would be low.	-0.019	-0.218
32. I know all the practical details of starting a business.	0.181	-0.457
33. I always try to perform better than others.	-0.689	-0.050
34. I prefer hard work than easy work.	-0.514	-0.400
35. I have no fear of failure.	-0.709	-0.313
36. I do not mind working for free to get the experience I need.	-0.674	-0.439
37. Business success is not due to luck.	-0.816	-0.051
38. My life is determined by my own acts.	-0.711	-0.094
39. I don't give up when I fail in a task.	-1.800	3.685
40. Risk of failure is not a main concern for me.	-0.675	-0.141

41. I don't mind working in a high-risk work environment, even if it will not provide me with a stable income.	-0.095	-0.688
42. One should start a business even if there is a chance of risk.	-0.323	-0.640
43. I often surprise people with new ideas.	-0.222	-0.574
44. I am a creative person.	-0.110	-0.456
45. People often ask me for help in creative activities	-0.104	-0.523
46. My university/ school provided me with the knowledge and information required to start a business.	-0.215	-0.627
47. My university/ school encourages me to develop creative ideas for being an entrepreneur.	-0.319	-0.570
48. During classes teachers provide students with real business examples.	-0.824	0.221
49. University/ School helped me to identify business opportunities.	-0.231	-0.475
50. University/ School provides me with information regarding start up centers in Lebanon (such as Berytech, BIAT, Entrepreneurs Lebanon. Etc.)	0.033	-0.752
51. University/ School taught me how to prepare a feasibility study.	-0.256	-0.667
52. University/ School often prepares workshops, seminars and training regarding entrepreneurship.	-0.173	-0.489
53. Lebanese government supports youth entrepreneurship.	0.679	-0.247
54. Lebanese government supports creation of new business.	0.698	-0.234
55. Procedures to start a business is easy in Lebanon.	0.843	0.053
56. Lebanese Government provides tax facilities for start-ups.	0.735	0.050
57. Lebanese Government provides financial incentives for start-ups.	0.783	0.071
58. In the Lebanese society having own business is better than being employed.	-0.265	-0.962
59. Lebanese economy provides many opportunities for entrepreneurs.	0.831	0.036
60. It is easy to obtain loans in Lebanon.	0.595	-0.305
61. Infrastructure (electricity, internet, water) in Lebanon supports startup companies.	1.023	0.393
62. The political instability in Lebanon does not affect the decision of opening a business.	0.849	-0.559



## Appendix H: Piloting Reliability

	<b>Cronbach's Alpha</b>	<b>Number of Items</b>
Entrepreneurial Intention	0.798	6
Attitudes	0.739	5
Social Norms	0.736	4
Perceived Behavioral Control	0.761	4
Need for achievement	0.756	4
Locus of Control	0.731	3
Risk taking	0.751	3
Innovativeness	0.810	3
Perceived university support	0.928	7
Perceived Governmental support	0.948	5
Perceived Environmental support	0.725	5